

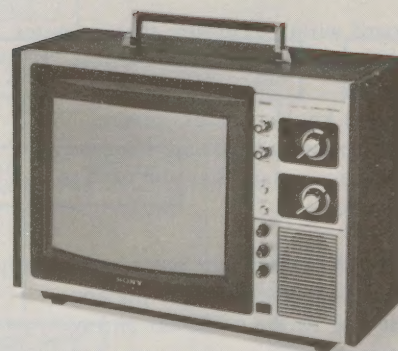
# KV-1204/1215

*USA Model*

Chassis No. {  
SCC-110B-A  
(KV-1204)  
SCC-110A-A  
(KV-1215)



KV-1204



KV-1215

**TRINITRON®**  
**COLOR TV**

## SPECIFICATIONS

<b>Television System:</b>	American TV standards	<b>Dimensions:</b>	446(w) x 343(h) x 375(d)mm 17-5/8(w) x 13-1/2(h) x 14-3/4(d) inches ..... KV-1204
<b>Color System:</b>	NTSC		472(w) x 345(h) x 375(d)mm 18-5/8(w) x 13-5/8(h) x 14-3/4(d) inches ..... KV-1215
<b>Picture Tube:</b>	30 cm, 12" (measured diagonally), 90° deflection TRINITRON system	<b>Net Weight:</b>	13.1 kg (28 lb 14 oz) ..... KV-1204 13.5 kg (29 lb 12 oz) ..... KV-1215
<b>Semiconductors:</b>	1 FET, 48 transistors, 38 (39) diodes, 2 (3) ICs and 1 GCS ( ): KV-1215	<b>Accessories:</b>	Earphone (ME-20B) VHF dipole antenna (AN-16) UHF loop antenna (AN-15) Instruction manual
<b>Antennas:</b>	VHF: 300Ω balanced (telescopic dipole*) UHF: 300Ω balanced (loop antenna*) * Note: Supplied with accessories.		
<b>Channel Coverage:</b>	VHF channels: 2-13 UHF channels: 14-83 (70-position detent tuner)		
<b>Intermediate Frequencies:</b>	Picture i-f carrier: 45.75 MHz Color subcarrier: 42.17 MHz Sound i-f carrier: 41.25 MHz		
<b>Sound System:</b>	4.5 MHz intercarrier Output power: 1.5 W (at 10% harmonic distortion) Speaker: 12 x 8 cm (4-3/4 x 3-1/8 inches) oval, 8Ω		
<b>Video System:</b>	RGB cathode drive		
<b>Automatic Controls:</b>	ABL (automatic brightness limiter) ACC (automatic color control) ACK (automatic color killer) ADG (automatic degaussing) AFC (automatic frequency control) AFT (automatic fine tuning) AGC (automatic gain control) ANC (automatic noise canceller) AVR (automatic voltage regulator)		
<b>Anode Voltage:</b>	23.5 kV at zero beam current		
<b>Power Requirements:</b>	120 V AC, 60 Hz		
<b>Power Consumption:</b>	95 W (max.)		

### WARNING!!

TO ELIMINATE SHOCK HAZARD AND PROTECT EQUIPMENT WHEN SERVICING THE SET WITH THE COVERS REMOVED, MAKE SURE THAT THE SET IS PLUGGED INTO A SUITABLY-RATED ISOLATION TRANSFORMER.

### X-RAY RADIATION WARNING!!

REPLACE COMPONENTS IDENTIFIED ON THE SCHEMATIC DIAGRAMS BY SHADING WITH SONY PARTS HAVING THE PART NUMBERS GIVEN IN THIS MANUAL, OR APPROVED SUPPLEMENTS, ONLY. CHECK HIGH VOLTAGE USING THE VALUE AND OPERATING CONDITIONS SHOWN ON THE SCHEMATIC DIAGRAM.

**SONY®**  
**SERVICE MANUAL**



## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate, be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metalized" knobs, screws, and all other exposed metal

parts for AC leakage. Check leakage as described below.

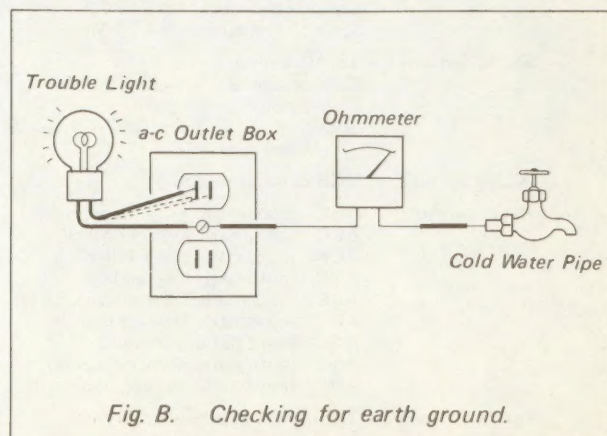
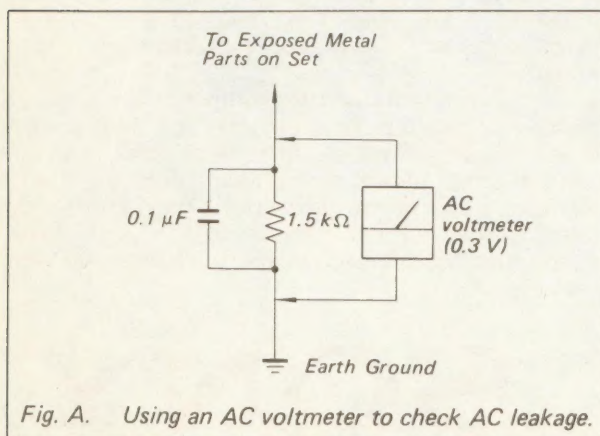
### LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground must not exceed 0.2 mA (200 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.3 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A.)

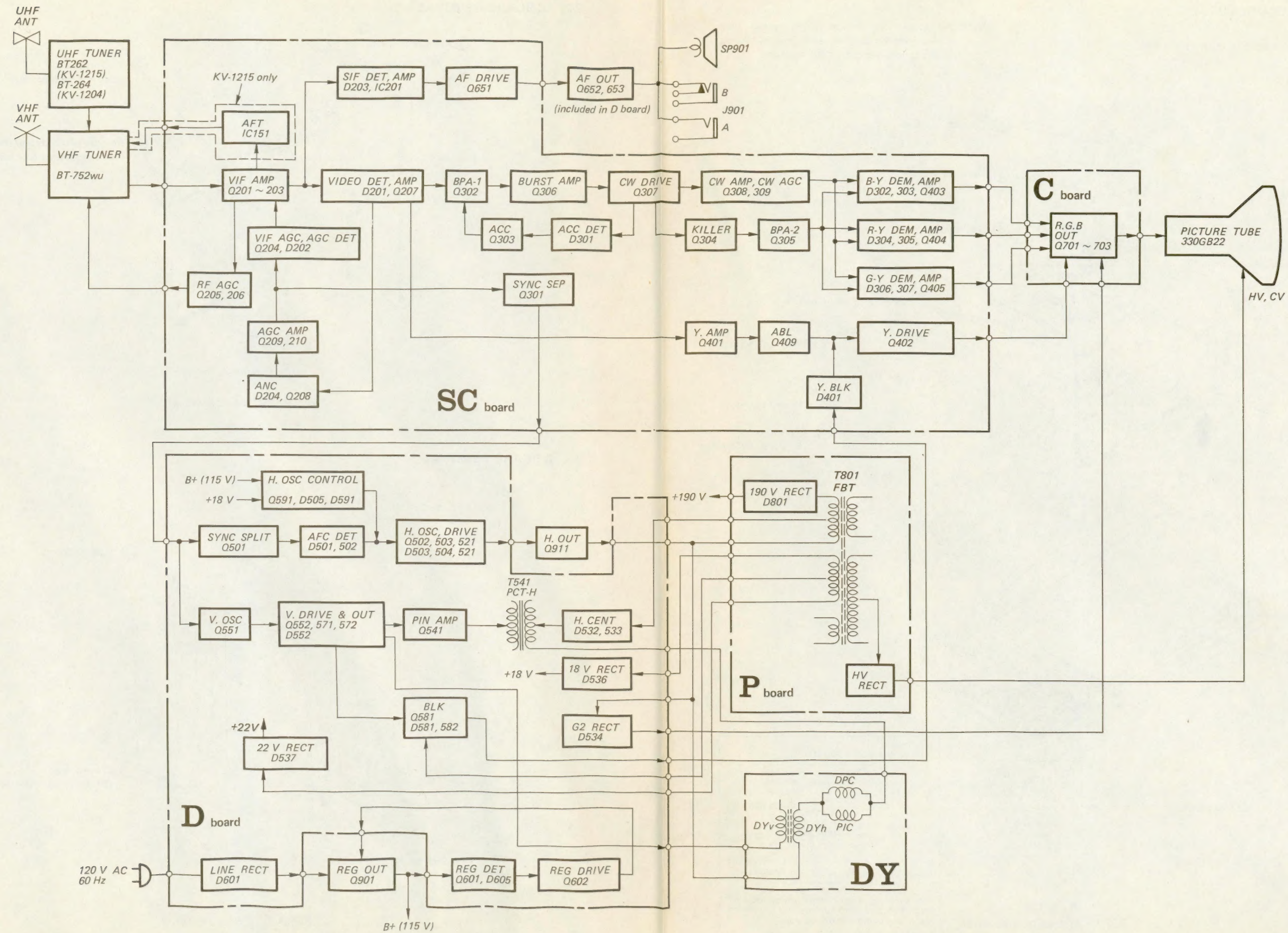
### HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most a-c outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60 – 100 watt trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line. The lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B.)





# SECTION 1 BLOCK DIAGRAM





## SECTION 2 DISASSEMBLY AND REPLACEMENT

### 2-1. PICTURE TUBE REMOVAL

Remove the picture tube in numerical order.

Note: All screws are Phillips (cross recess) type.  
When removing the cabinet or chassis, take out all the screws marked  $\Rightarrow$  on them.

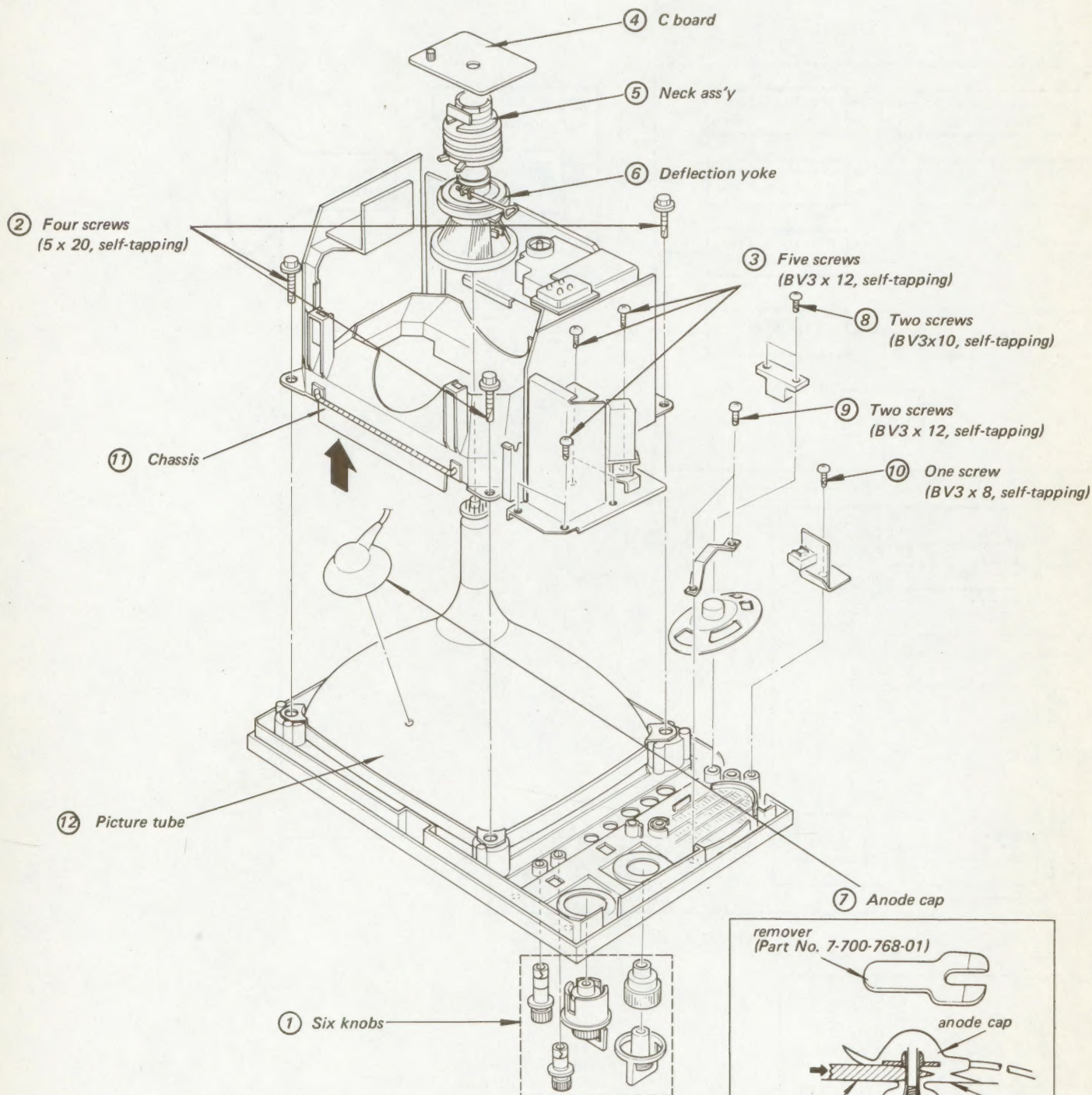


Fig. 2-1. Picture tube removal

### 2-2. SC BOARD REMOVAL

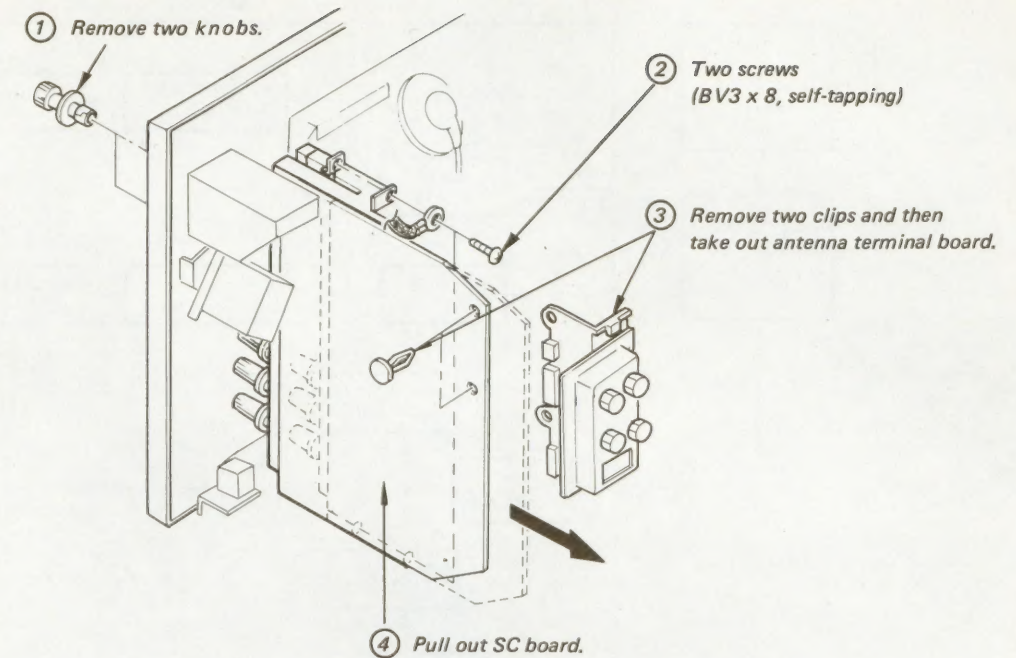


Fig. 2-2. SC board removal

### 2-3. D BOARD REMOVAL

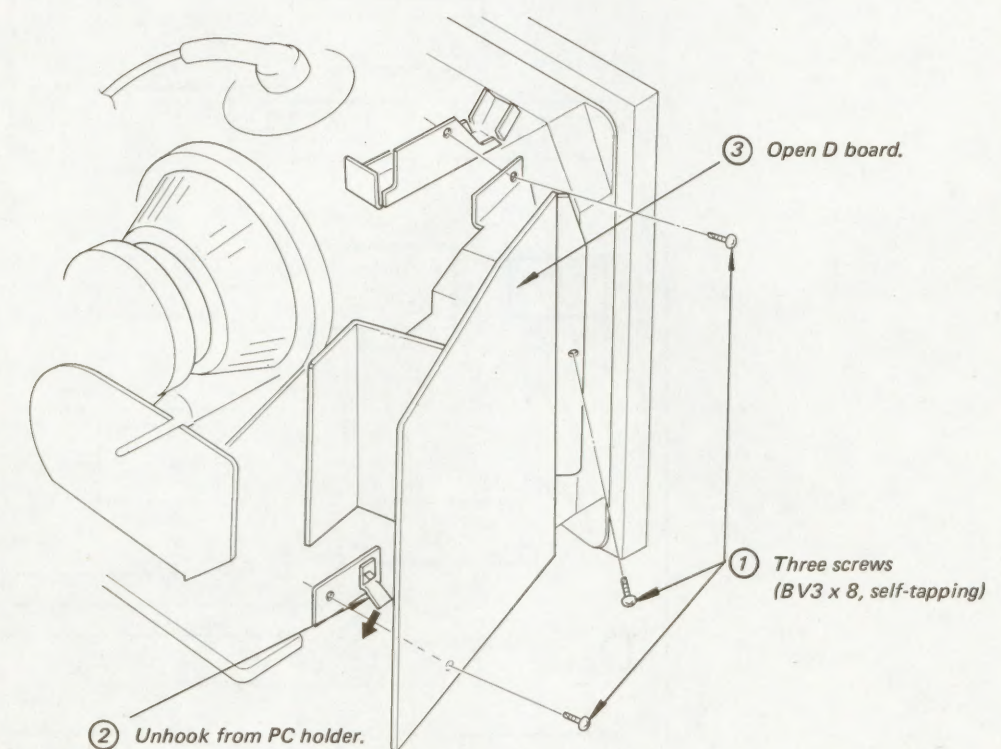


Fig. 2-3. D board removal



#### 2.4. UHF TUNER DIAL CALIBRATION

1. Turn the tuner shaft fully counterclockwise.
2. Set the digits on the dial drums as shown in Fig. 2-4, and then fix them with cellophane tape.
3. Mesh the dial drums with the skip gear as shown in Fig. 2-5.
4. Install the compression spring and drum support on the drum shaft. Then, install the dial drums and the meshed skip gear (See Fig. 2-6).
5. Tighten the UHF tuner with three screws (PS3x5), and then install the drive gear as shown in Fig. 2-7. Remove the cellophane tape.
6. Confirm that the tuner drums indicate "14" by turning the shaft fully counterclockwise, while "83" by turning the shaft fully clockwise.

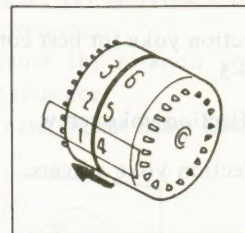


Fig. 2-4. Digit setting

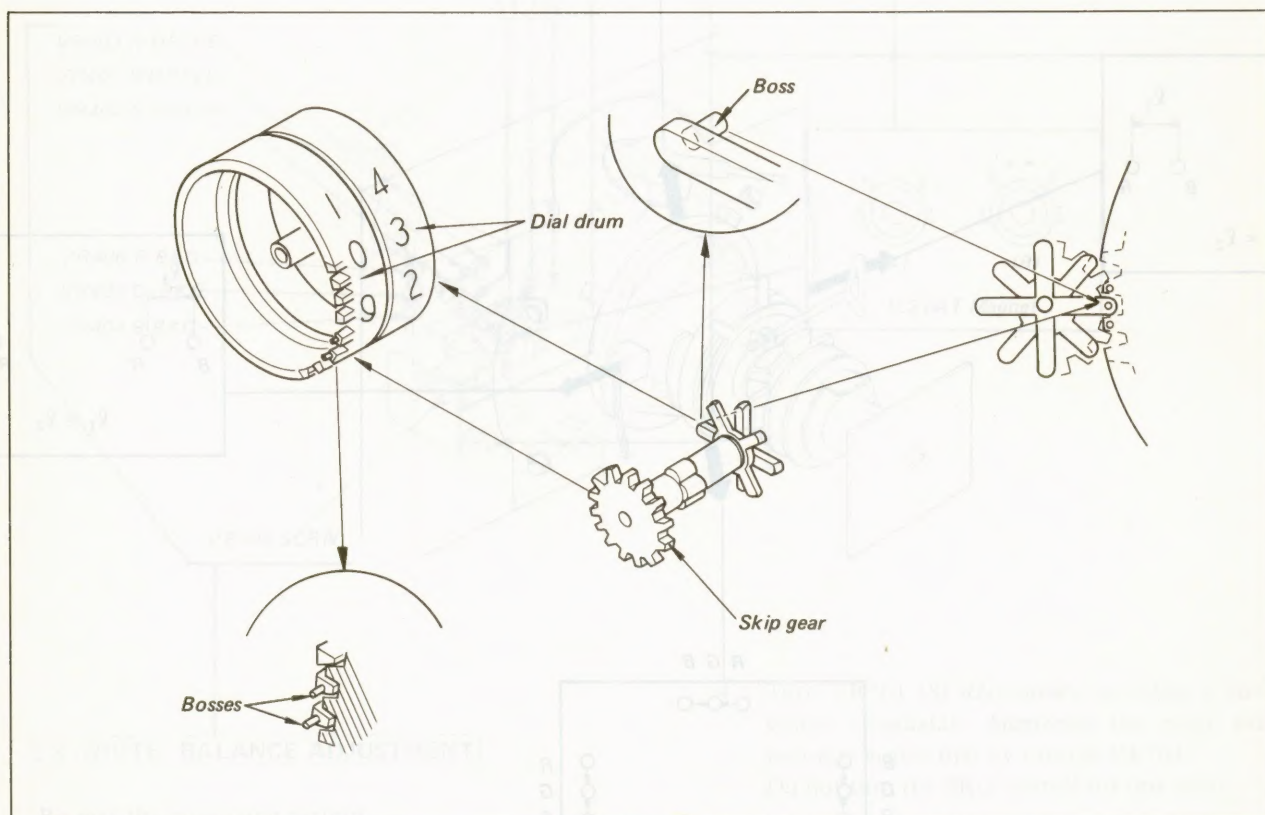


Fig. 2-5. UHF tuner dial calibration (1)



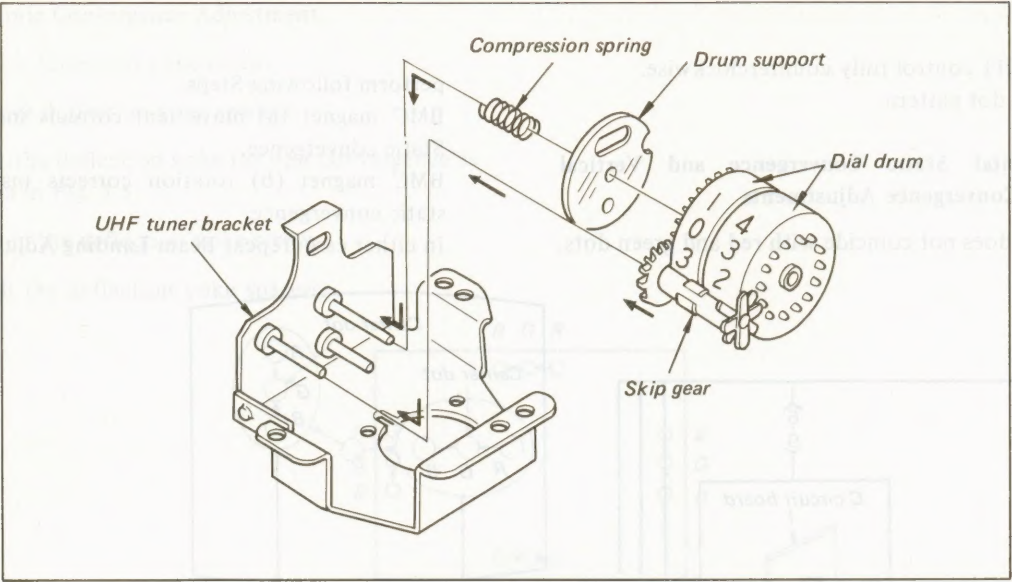


Fig. 2-6. UHF tuner dial calibration (2)

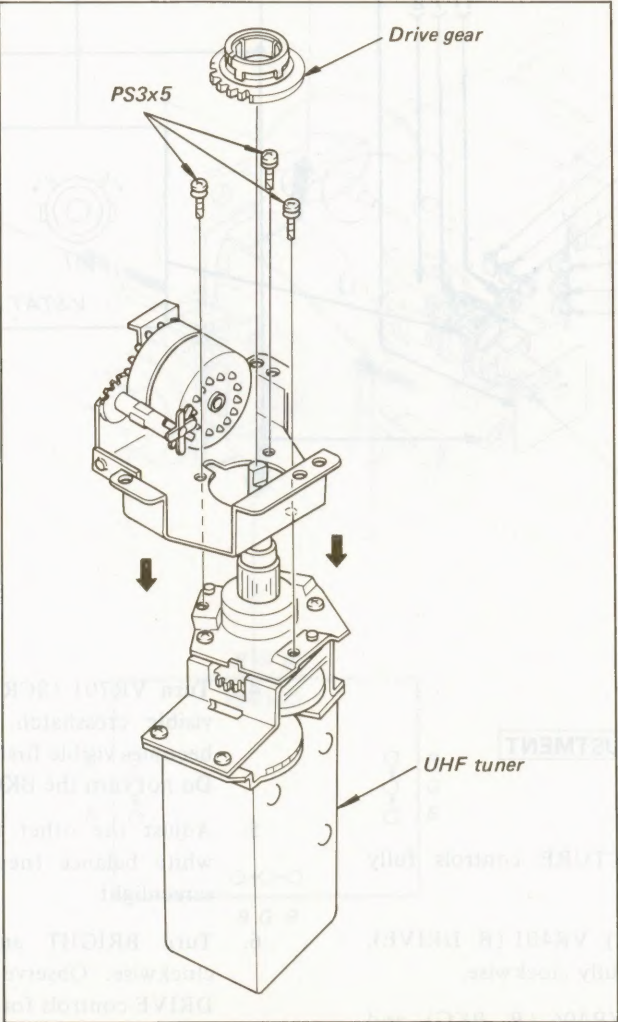


Fig. 2-7. UHF tuner dial calibration (3)

2-5. CIRCUIT BOARDS LOCATION

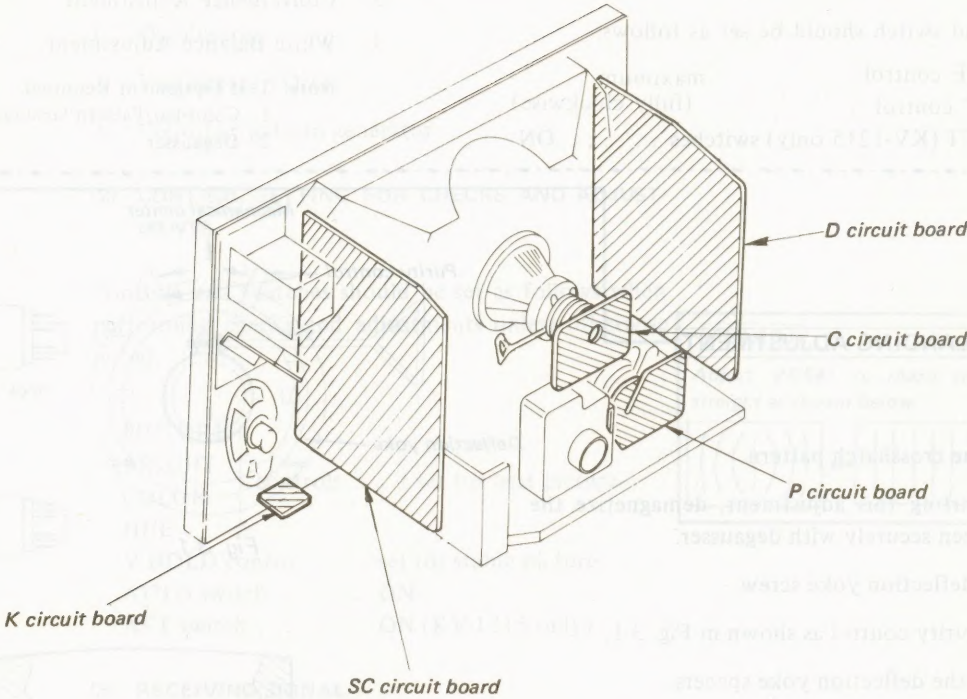


Fig. 2-8. Circuit boards location



SECTION 3  
SETUP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

Controls and switch should be set as follows:

PICTURE control } ..... maximum  
BRIGHT control } ..... (fully clockwise)  
AUTO, AFT (KV-1215 only) switches ..... ON

Perform the adjustments in order as follows:

1. Beam Landing Adjustment
2. Convergence Adjustment
3. White Balance Adjustment

**Note:** Test Equipment Required.  
1. Color-bar/Pattern Generator  
2. Degausser

## 3-1. BEAM LANDING ADJUSTMENT

## Preparation:

- Receive the crosshatch pattern.
- Before starting this adjustment, demagnetize the whole screen securely with degausser.

1. Loosen deflection yoke screw.
2. Adjust purity control as shown in Fig. 3-1.
3. Remove the deflection yoke spacers.
4. Slide deflection yoke forward as far as it will go.
5. Position neck ass'y as shown in Fig. 3-2.
6. Disconnect leads ⑥ and ⑦ on the C circuit board.
7. Adjust purity control to center vertical red band as shown in Fig. 3-3.
8. Slide deflection yoke backward for a uniform red screen.
9. Check green and blue rasters for uniformity.  
To get a uniform green screen.  
... Connect lead ⑥ on the C circuit board.  
Disconnect leads ⑤ and ⑦.  
To get a uniform blue screen.  
... Connect lead ⑦ on the C circuit board.  
Disconnect leads ⑤ and ⑥.  
After these checks, connect the leads ⑤, ⑥ and ⑦.
10. Install the deflection yoke spacers.
11. Tighten the deflection yoke screw.
12. Check if mislanding appears at corners a ~ d as shown in Fig. 3-4. If mislanding is observed, correct it as shown in Fig. 3-4.
13. Confirm that mislanding is not observed although the receiver is faced in any direction.

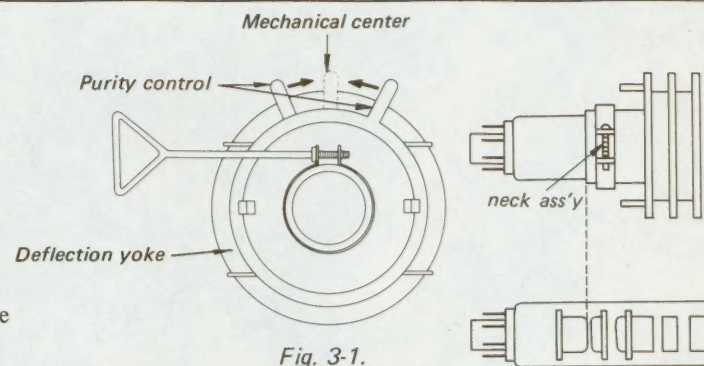


Fig. 3-1.

Fig. 3-2.

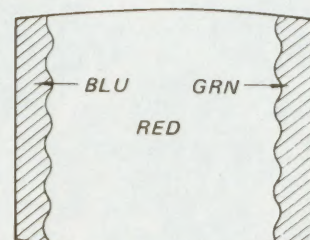


Fig. 3-3.

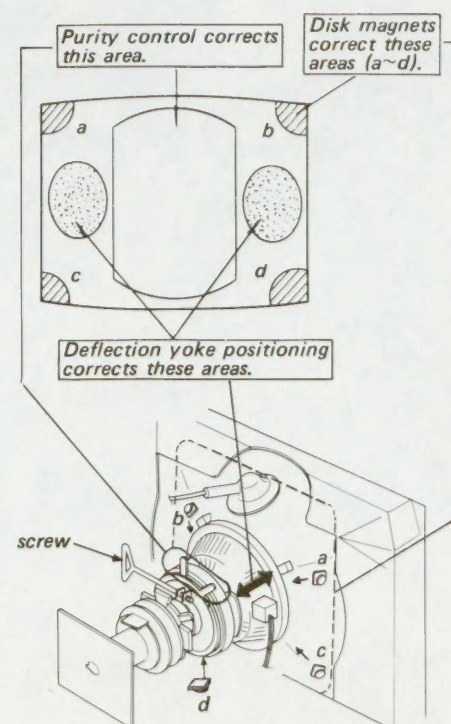


Fig. 3-4.

## 3-2. CONVERGENCE ADJUSTMENT

## Preparation:

Turn BRIGHT control fully counterclockwise.  
Receive the dot pattern.

## (1) Horizontal Static Convergence and Vertical Static Convergence Adjustments

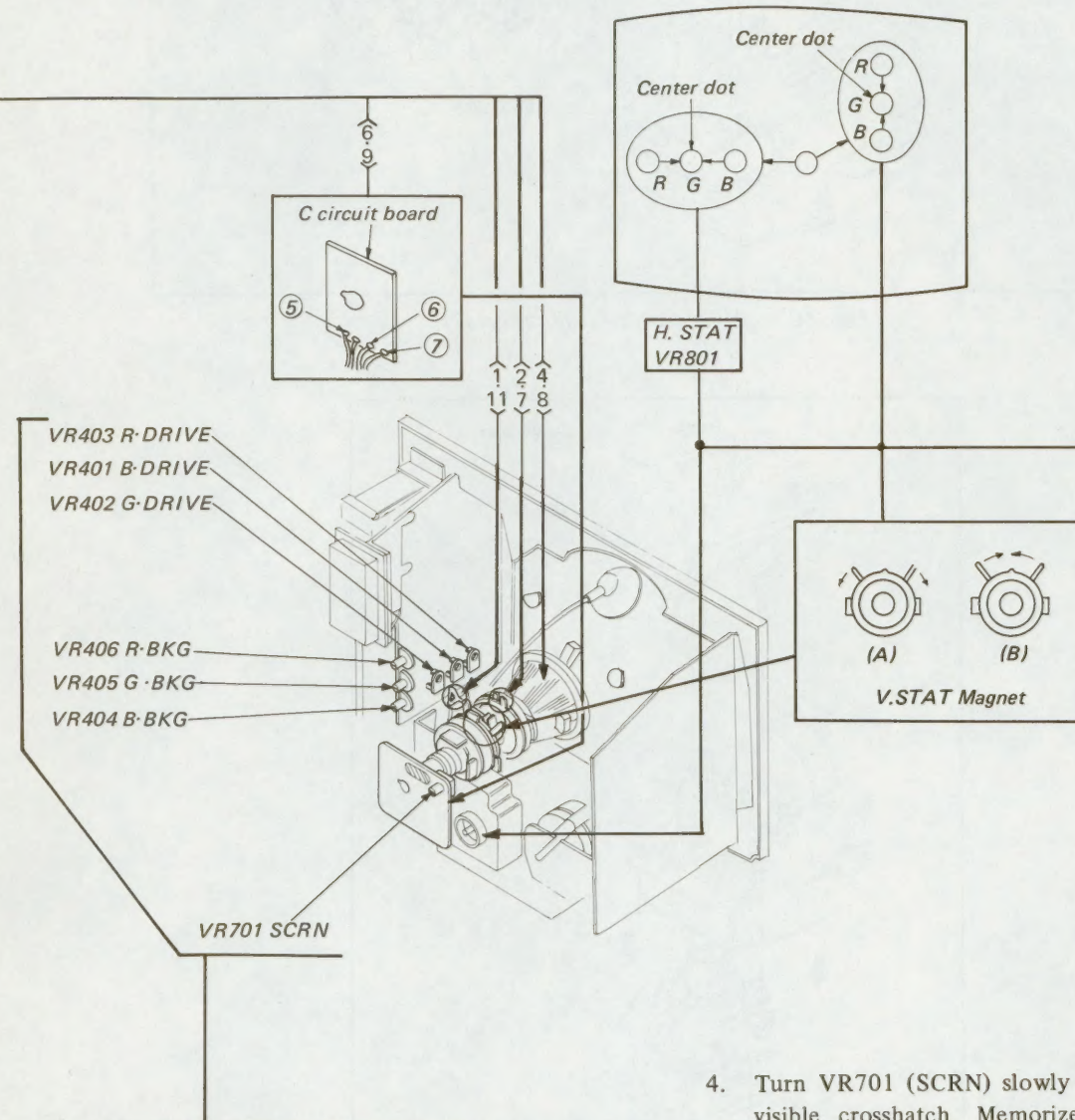
If blue dot does not coincide with red and green dots,

perform following Steps.

BMC magnet (a) movement corrects insufficient H. Static convergence.

BMC magnet (b) rotation corrects insufficient V. static convergence.

In either case, repeat Beam Landing Adjustment.



## 3-3. WHITE BALANCE ADJUSTMENT

Receive the crosshatch pattern.

1. Turn BRIGHT and PICTURE controls fully counterclockwise.
2. Turn VR402 (G. DRIVE), VR401 (B. DRIVE), and VR403 (R. DRIVE) fully clockwise.
3. Set VR404 (B. BKG), VR406 (R. BKG), and VR405 (G. BKG) to mechanical center.

4. Turn VR701 (SCRN) slowly to obtain a faintly visible crosshatch. Memorize the color which becomes visible first by turning VR701.  
Do not turn the BKG control for this color.
5. Adjust the other two BKG controls for best white balance (neutral gray) at faintly visible screenlight.
6. Turn BRIGHT and PICTURE controls fully clockwise. Observe the screen and adjust the DRIVE controls for best white balance.
7. Repeat Steps 1 through 6 several times.



## (2) Dynamic Convergence Adjustment

1. Loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown in Fig. 3-5.
4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

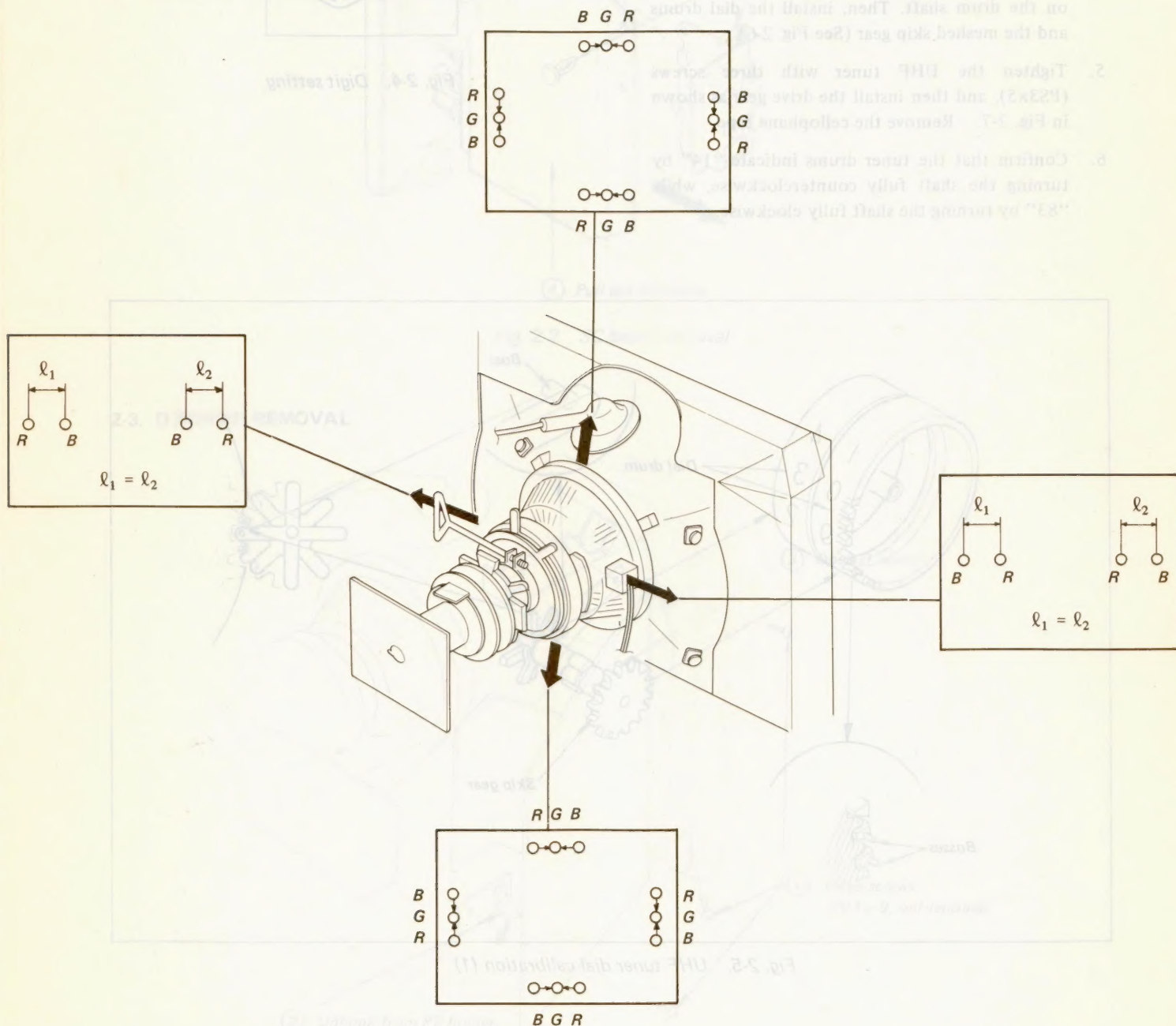


Fig. 3-5.



## SECTION 4 CIRCUIT ADJUSTMENTS

### 4-1. D CIRCUIT BOARD ADJUSTMENTS

#### Note:

#### (1) TEST EQUIPMENT REQUIRED

1. Oscilloscope
2. Voltmeter (VOM)
3. Color-bar/pattern generator

#### (2) CONTROL SETTING FOR CHECKS AND ADJUSTMENTS

Controls and switches should be set as follows when performing checks and adjustments unless otherwise noted.

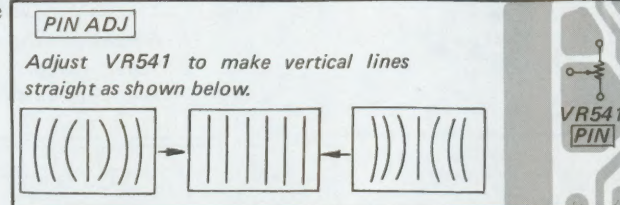
PICTURE  
BRIGHT  
COLOR  
HUE  
controls . . . . . set for best picture

V HOLD control . . . . set for stable picture  
AUTO switch . . . . . ON  
AFT switch . . . . . ON (KV-1215 only)

#### (3) RECEIVING SIGNAL

When performing these adjustments, receive any of a crosshatch signal, a color-bar signal or an off-the-air signal.

B+ Pre-ADJ	} . . . . . D Circuit Board (P. 13, 14)
B+ (115 V) ADJ	
PIN ADJ	
H-FREQ ADJ	
H-OSC CONTROL ADJ	
4.5 MHz TRAP ADJ	} . . . . . SC Circuit Board (P. 15, 16)
SIF ADJ	
3.5 MHz TRAP ADJ	
TUNER AGC ADJ	
BAT ADJ	
HUE ADJ	
ACC ADJ	
AFT ADJ (KV-1215 only)	
FOCUS ADJ . . . . .	C Circuit Board (P. 17)



#### H-OSC CONTROL ADJ

1. Receive an off-the-air signal.
2. Connect a resistor (about 20kΩ) in parallel with R608.
3. Adjust VR601 for 120 ~ 130V DC on the VOM(B).
4. Select resistance value of R595 so that picture does not synchronize as shown.



5. Remove the resistor across R608, and then readjust VR601 for 115V DC on the VOM(B).

#### H FREQ ADJ

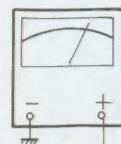
1. Connect an electrolytic capacitor (1μF 50V).
2. Adjust VR501 to synchronize the picture.
3. Remove the capacitor.

#### B+ Pre-ADJ

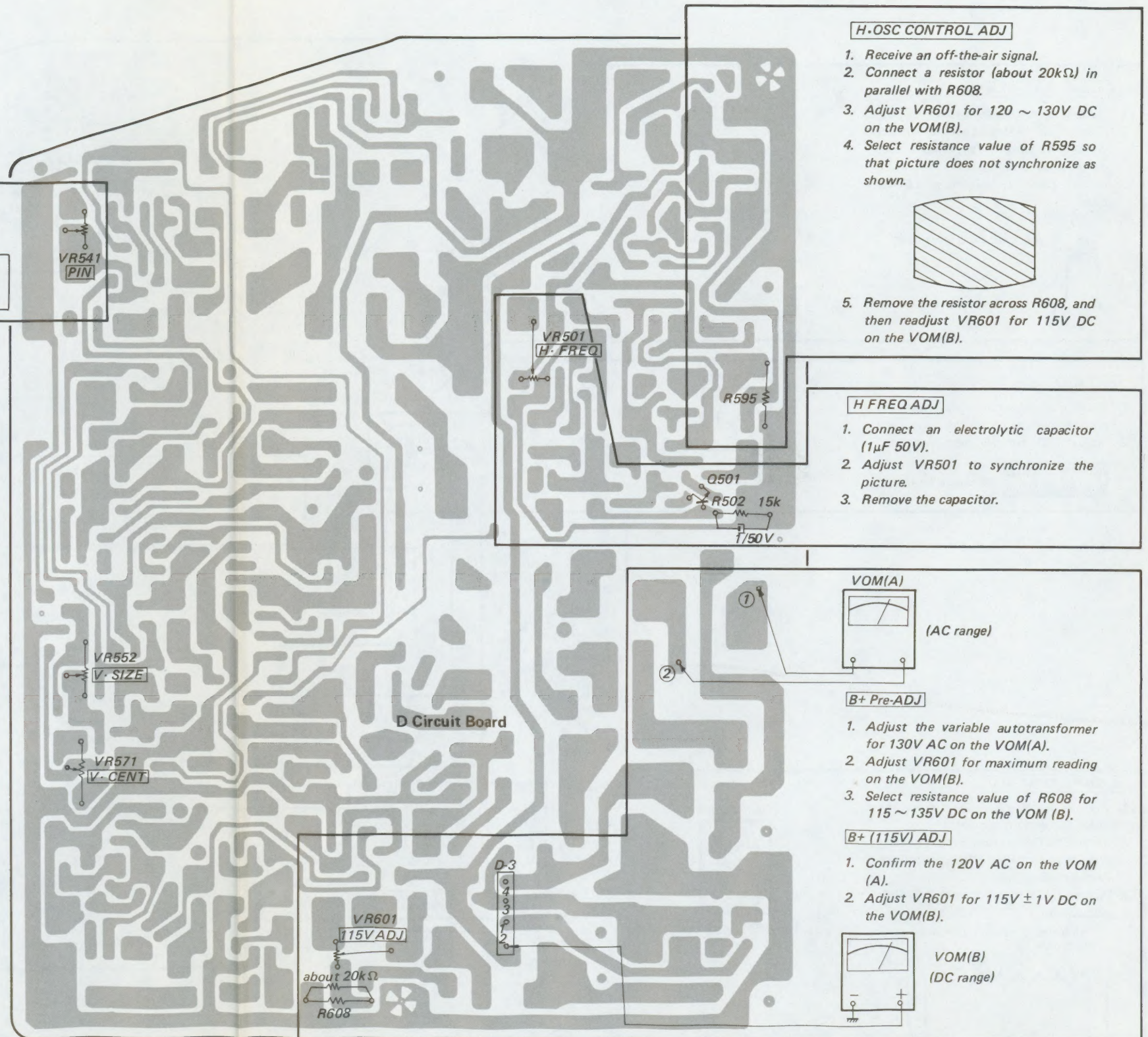
1. Adjust the variable autotransformer for 130V AC on the VOM(A).
2. Adjust VR601 for maximum reading on the VOM(B).
3. Select resistance value of R608 for 115 ~ 135V DC on the VOM (B).

#### B+ (115V) ADJ

1. Confirm the 120V AC on the VOM (A).
2. Adjust VR601 for 115V ± 1V DC on the VOM(B).

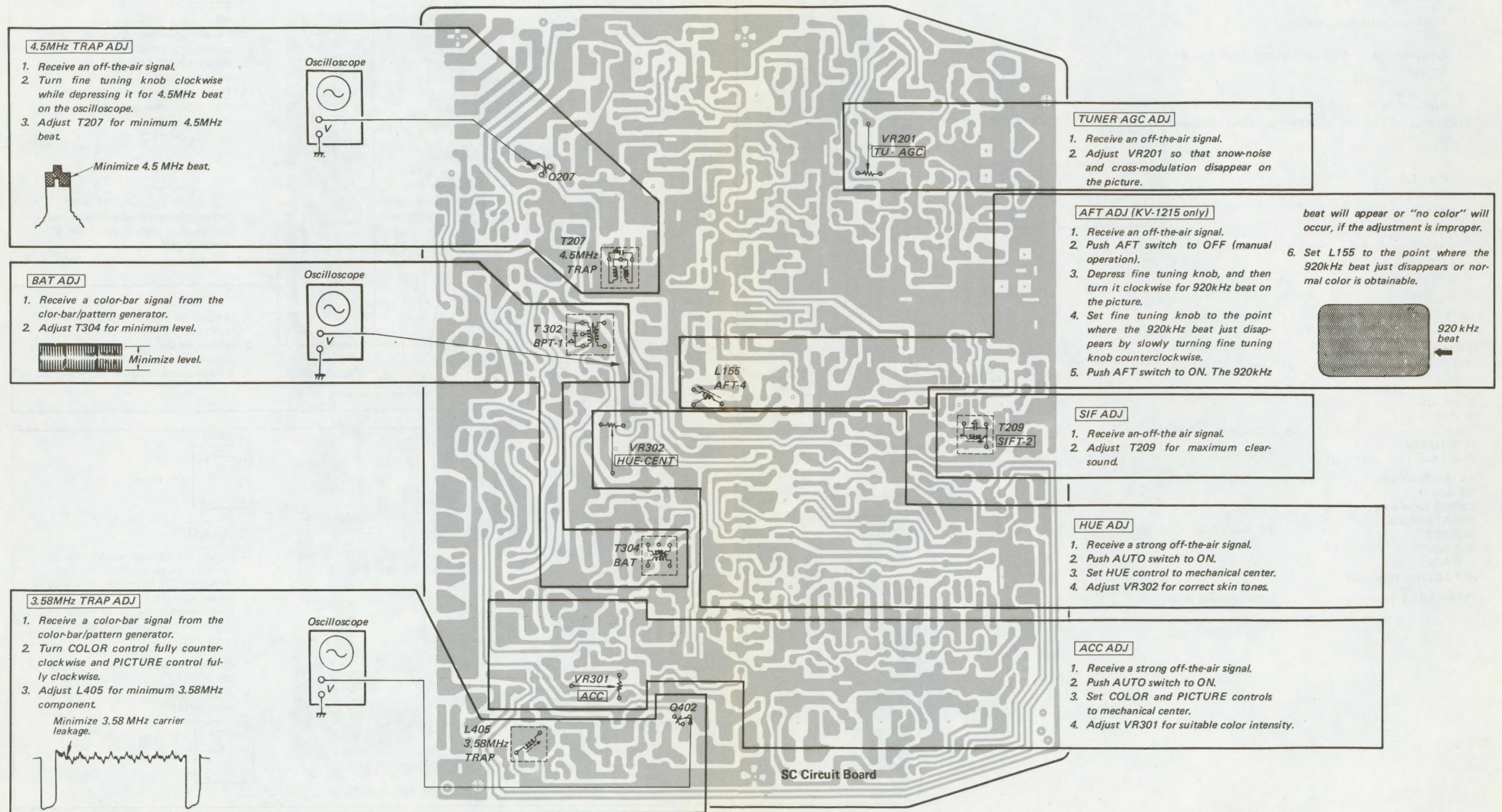


VOM(B)  
(DC range)





## 4-2. SC CIRCUIT BOARD ADJUSTMENTS

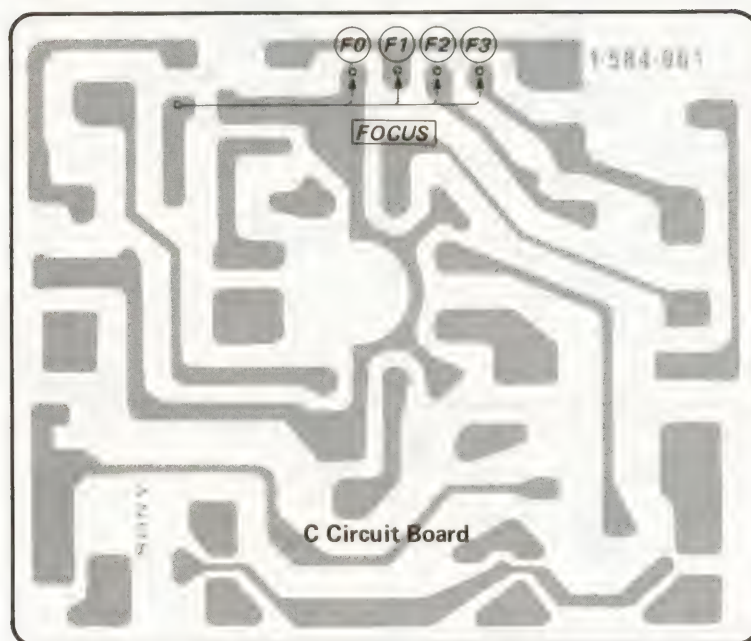




### 4-3. C CIRCUIT BOARD ADJUSTMENT

#### FOCUS ADJ

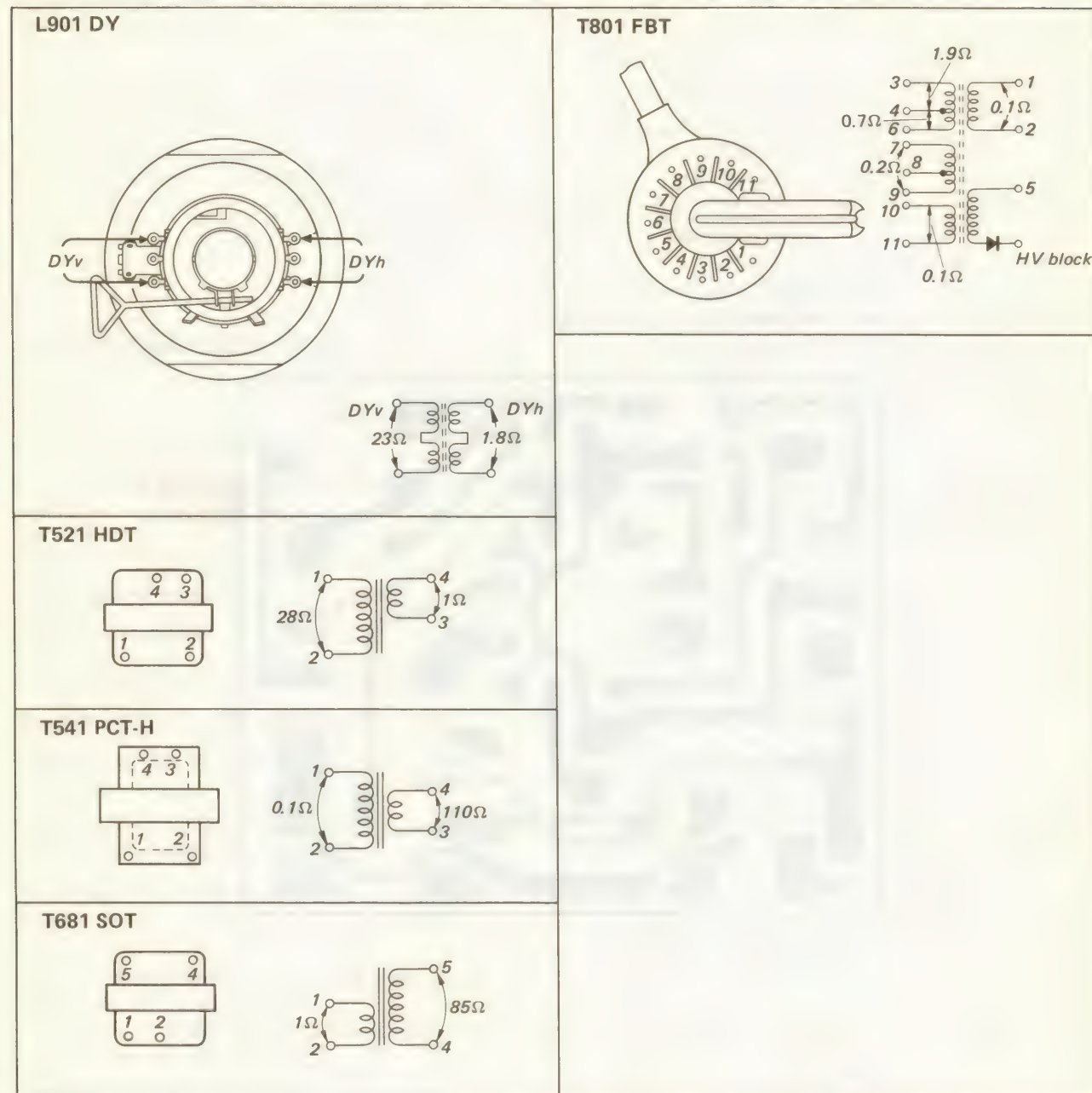
Select one of these connections (F0 ~ F3)  
for best focus.





## SECTION 5 DIAGRAMS

## 5-1. DC RESISTANCE AND WINDING DIAGRAMS OF COIL AND TRANSFORMERS



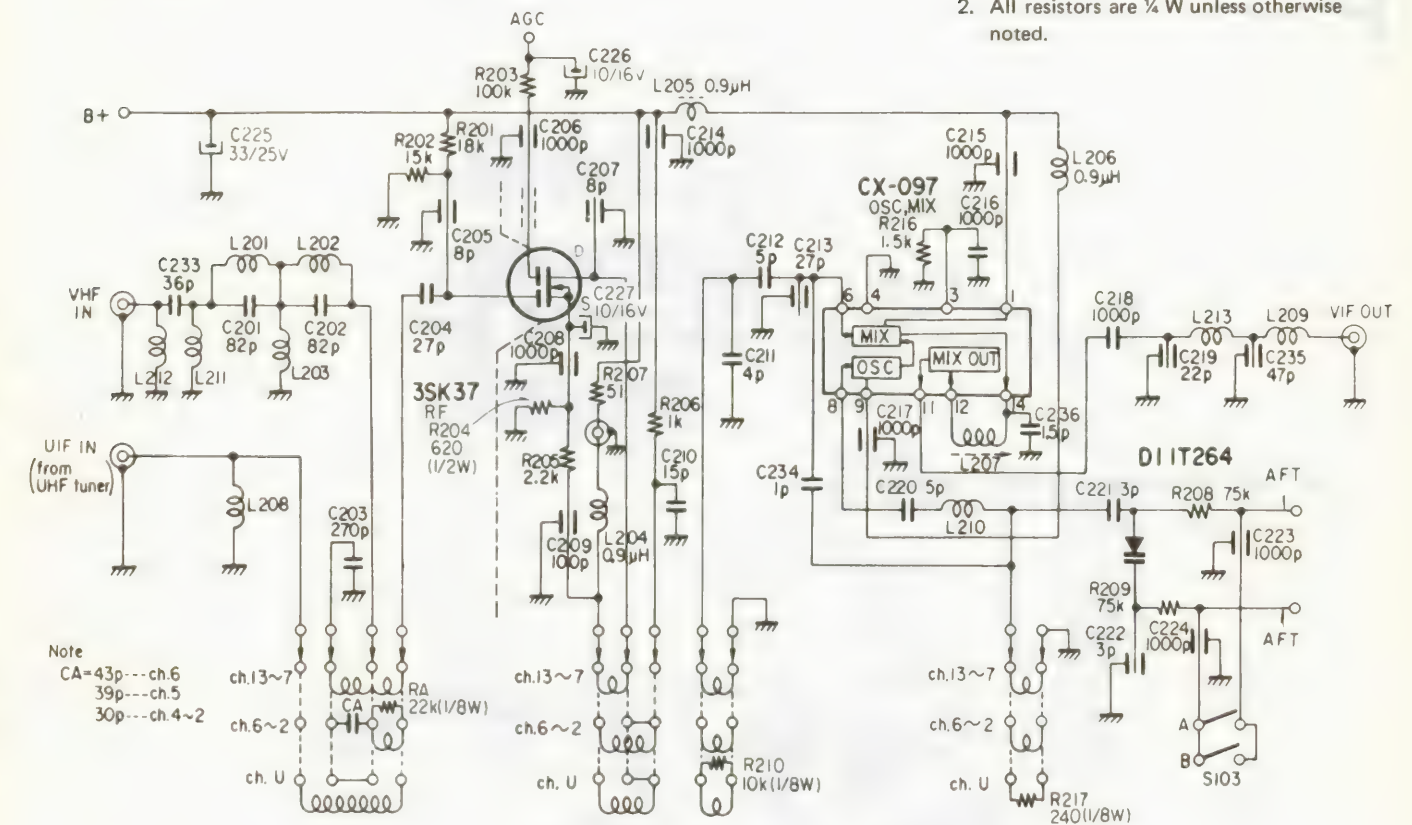
**Note:** DC resistance measurements shown with coil disconnected from circuit.

## 5-2. VHF AND UHF TUNER SCHEMATIC DIAGRAMS

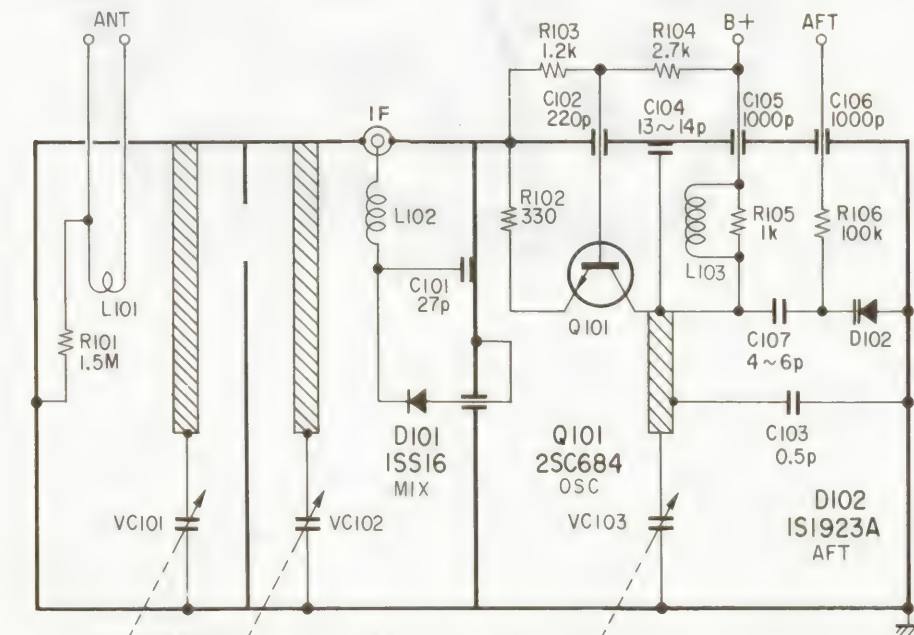
— VHF tuner —  
(BT-752Wu)

**Note:** 1. Tuner reference numbers and values are not included in the Electrical Parts List (Page 35 ~ 41).

2. All resistors are  $\frac{1}{4}$  W unless otherwise noted.



— UHF tuner —  
(BT-262) . . . . . KV-1215

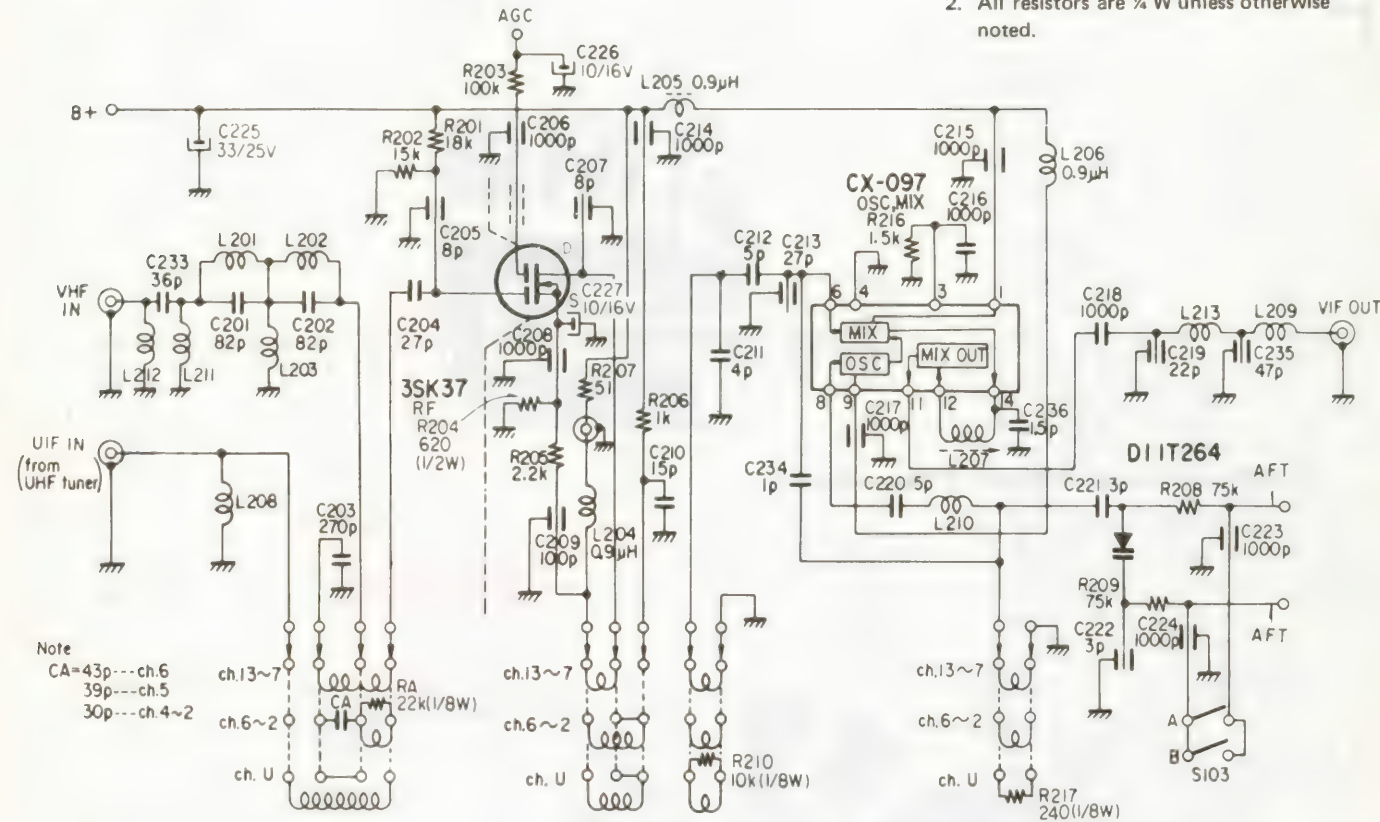




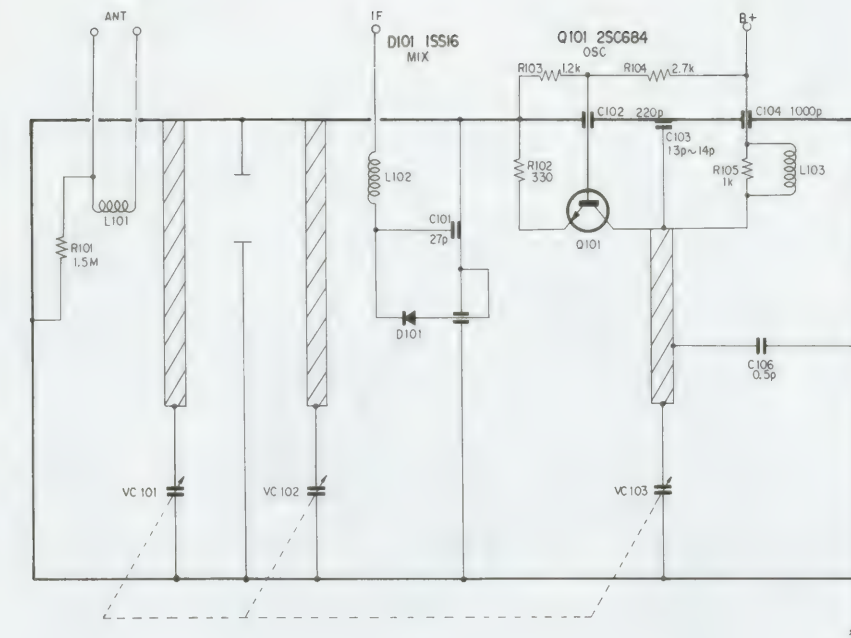
## 5-2. VHF AND UHF TUNER SCHEMATIC DIAGRAMS

— VHF tuner —  
(BT-752Wu)

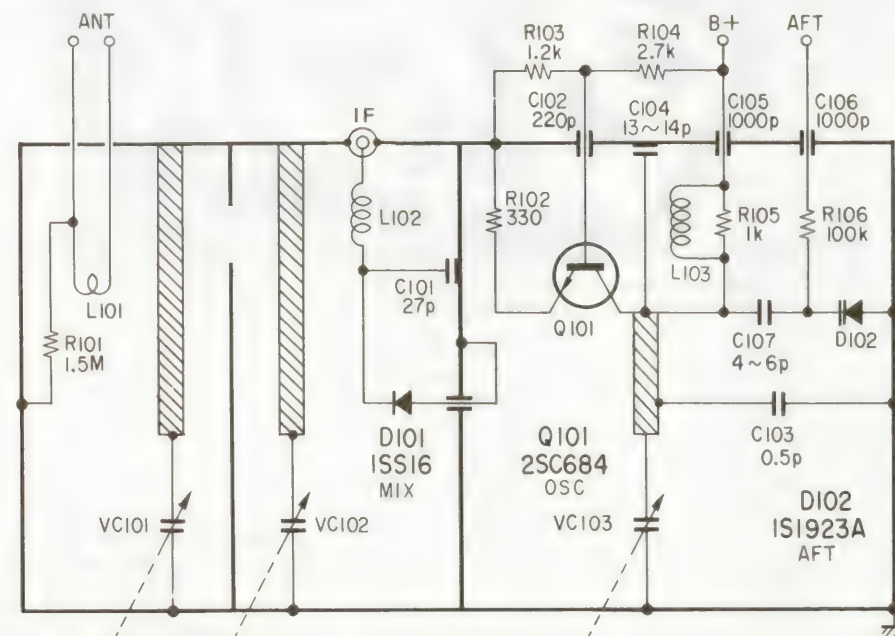
Note: 1. Tuner reference numbers and values are not included in the Electrical Parts List (Page 35 ~ 41).  
2. All resistors are 1/4 W unless otherwise noted.



—UHF tuner—  
(BT-264) ----- KV-1204



— UHF tuner —  
(BT-262) ..... KV-1215





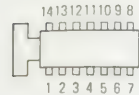




SC

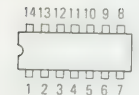
SC

CX089D  
(KV-1215 only)



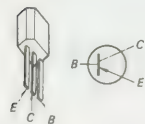
(Top view)

AN240

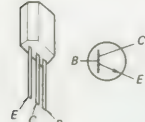


(Top view)

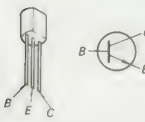
2SA677



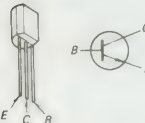
2SC403C  
2SC633A



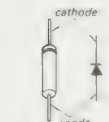
2SC1128  
2SC1129



2SC1363

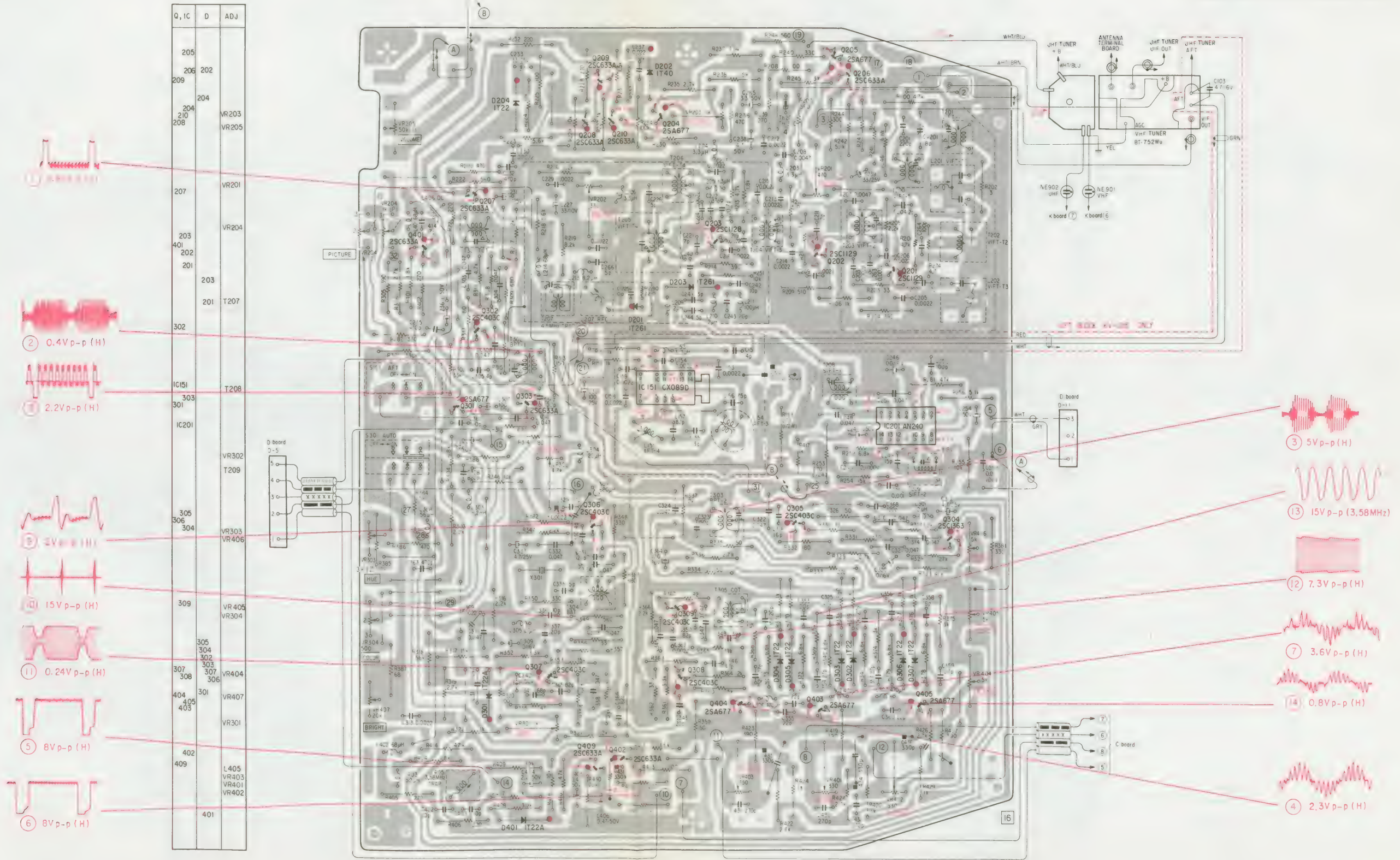


1T22  
1T22A  
1T261  
1T40



# 5-6. MOUNTING DIAGRAM—SC Circuit Board — —Conductor Side—

Note: ● indicates parts or wire connection point on the conductor side.  
○ indicates parts or wire connection point through the component side.  
■ indicates parts on the conductor side.




A-1305-061-A

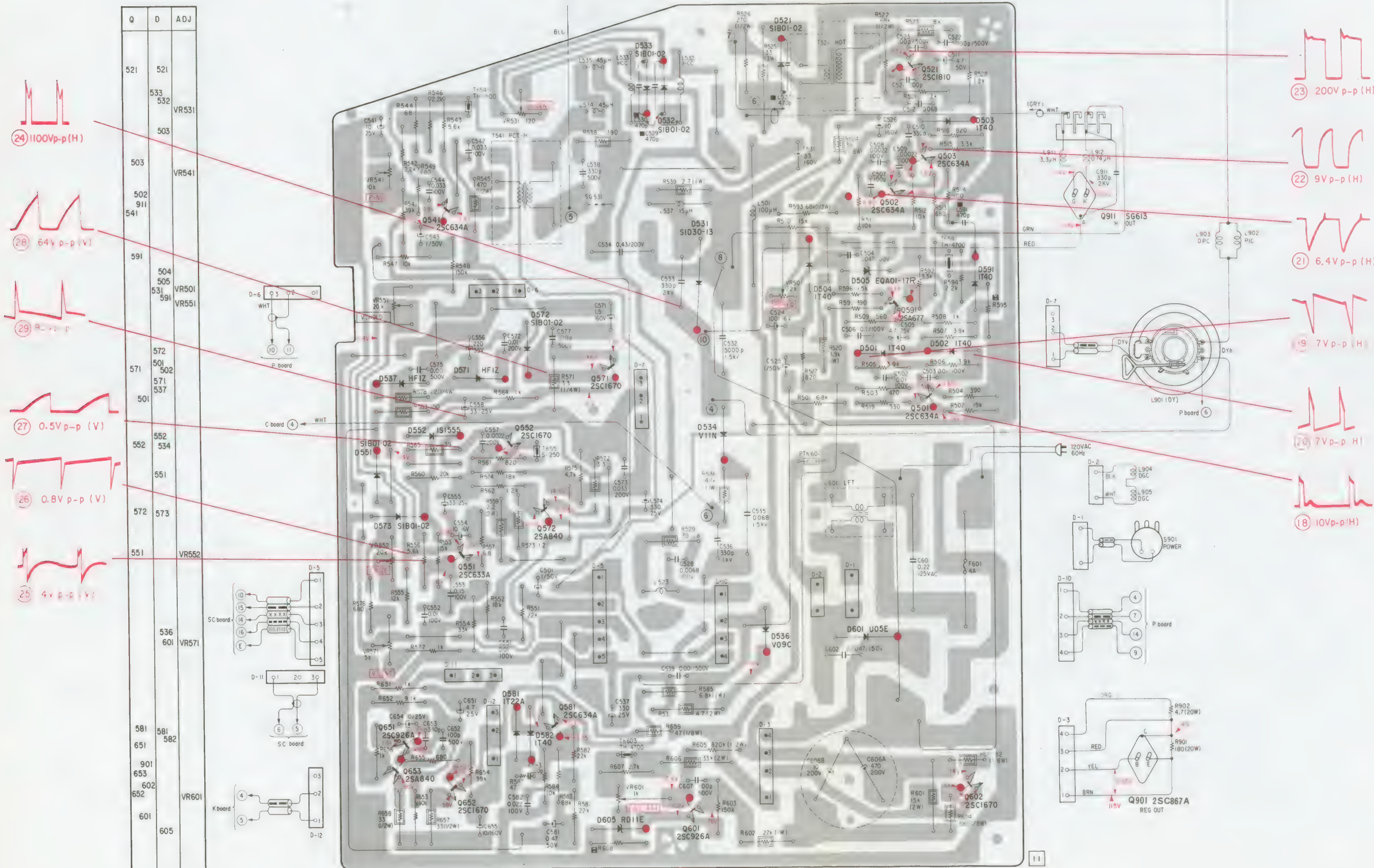


5-7. MOUNTING DIAGRAM —D Circuit Board—

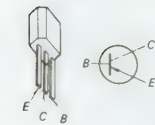
—Conductor Side—

D D

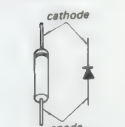
Note: ● indicates parts or wire connection point on the conductor side.  
○ indicates parts or wire connection point through the component side.  
□ indicates a nonflammable resistor.  
⊠ indicates factory selected values.  
■ indicates parts on the conductor side.  
The symbol  printed on the conductor side of circuit board indicates that complete connection should be especially made.



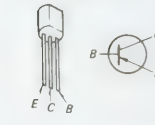
2SA677



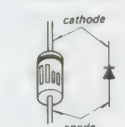
1T22A  
1T40  
1S1555  
RD11E



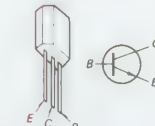
2SA840



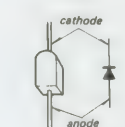
EQA01-25R  
SIB01-02



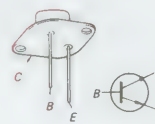
2SC633A  
2SC634A  
2SC926A



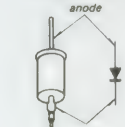
HF1Z



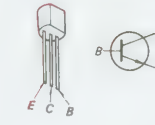
2SC867A



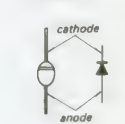
SID30-13



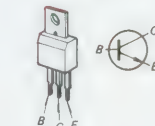
2SC1670



V09C  
VIIN  
U05E



2SC1810



SG613

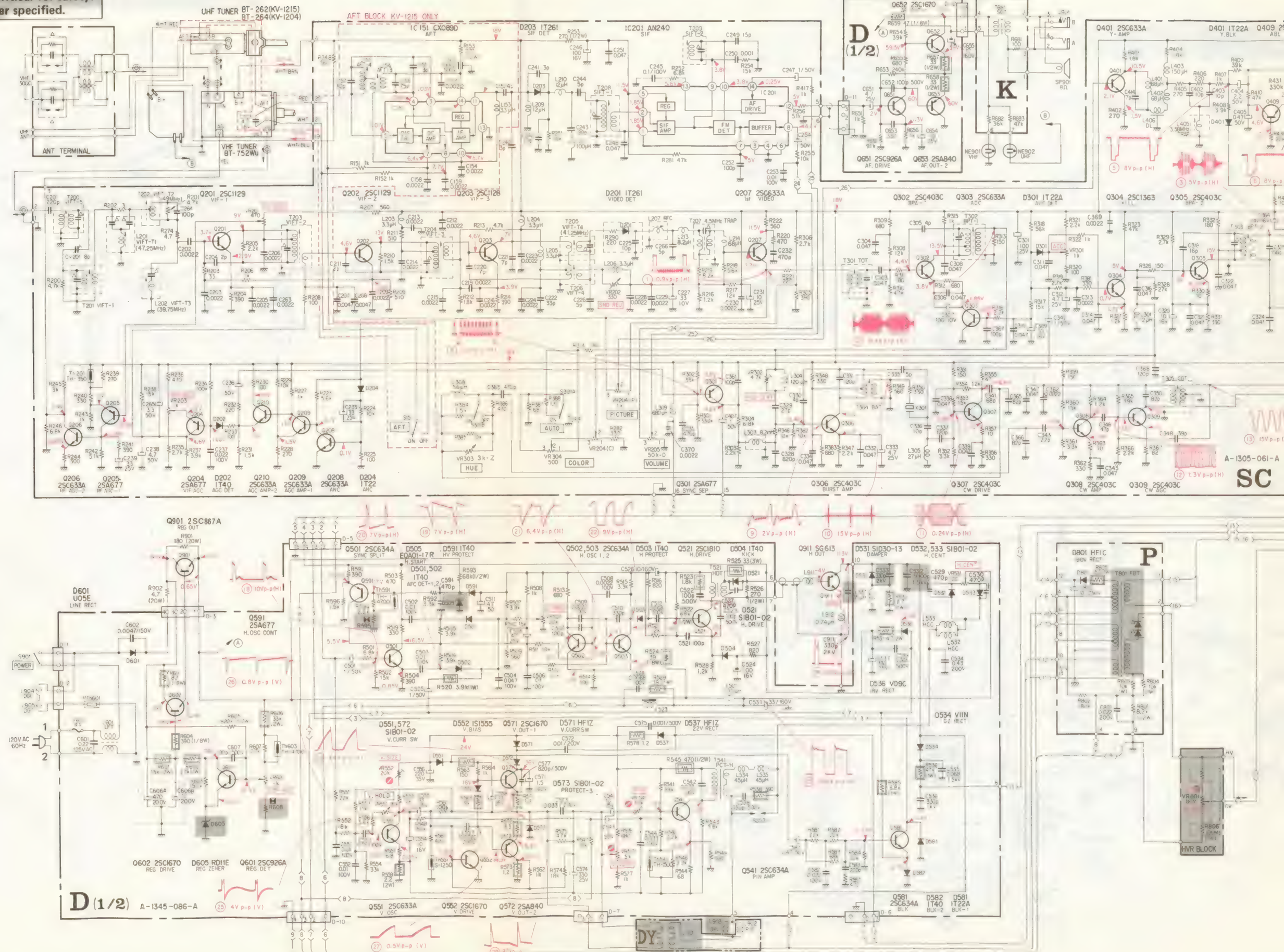




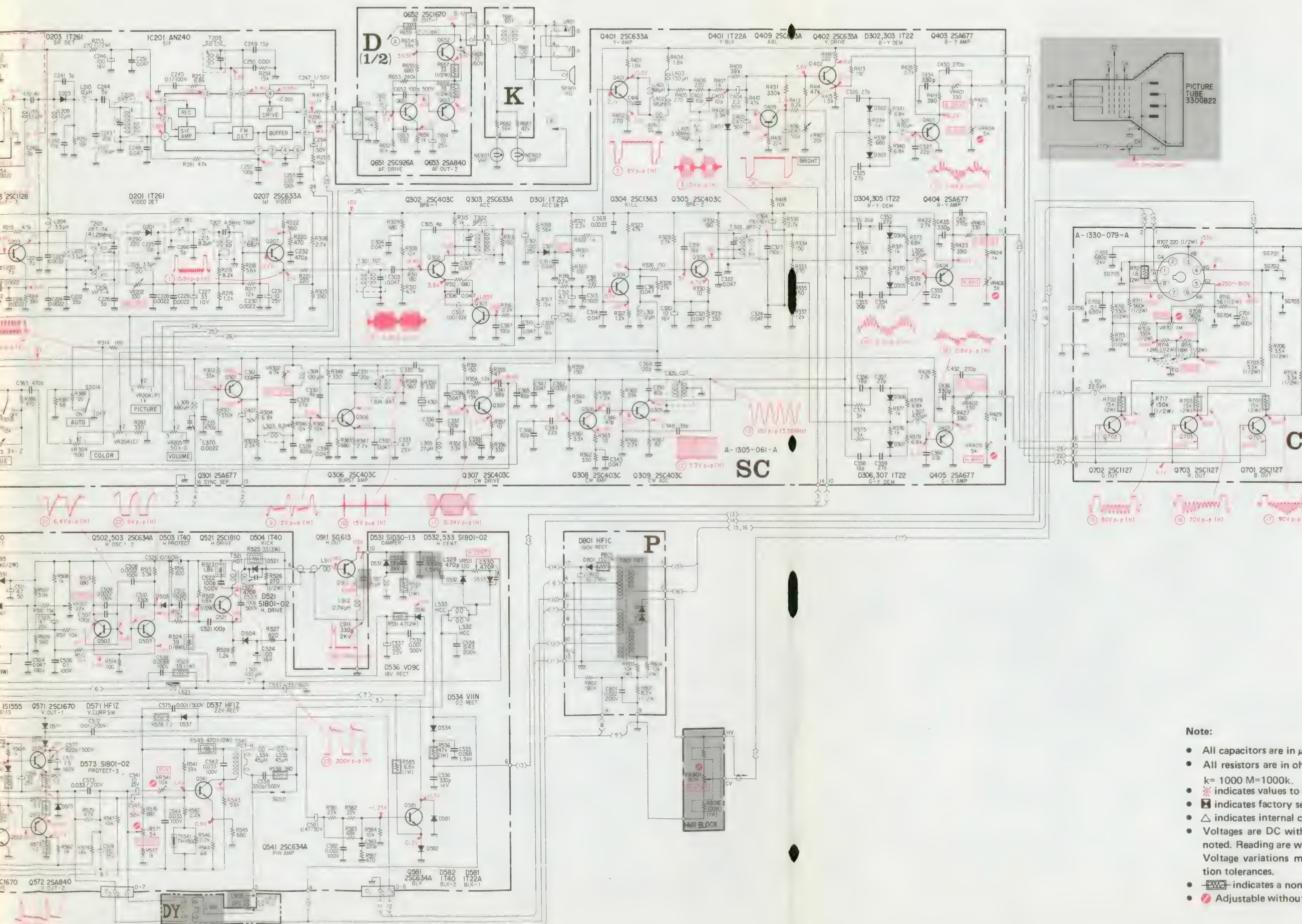
# 5.8. SCHEMATIC DIAGRAM

KV-1204 KV-1204  
KV-1215 KV-1215

Note: The shaded components are critical for safety.  
Replace only with part number specified.







**Note:**

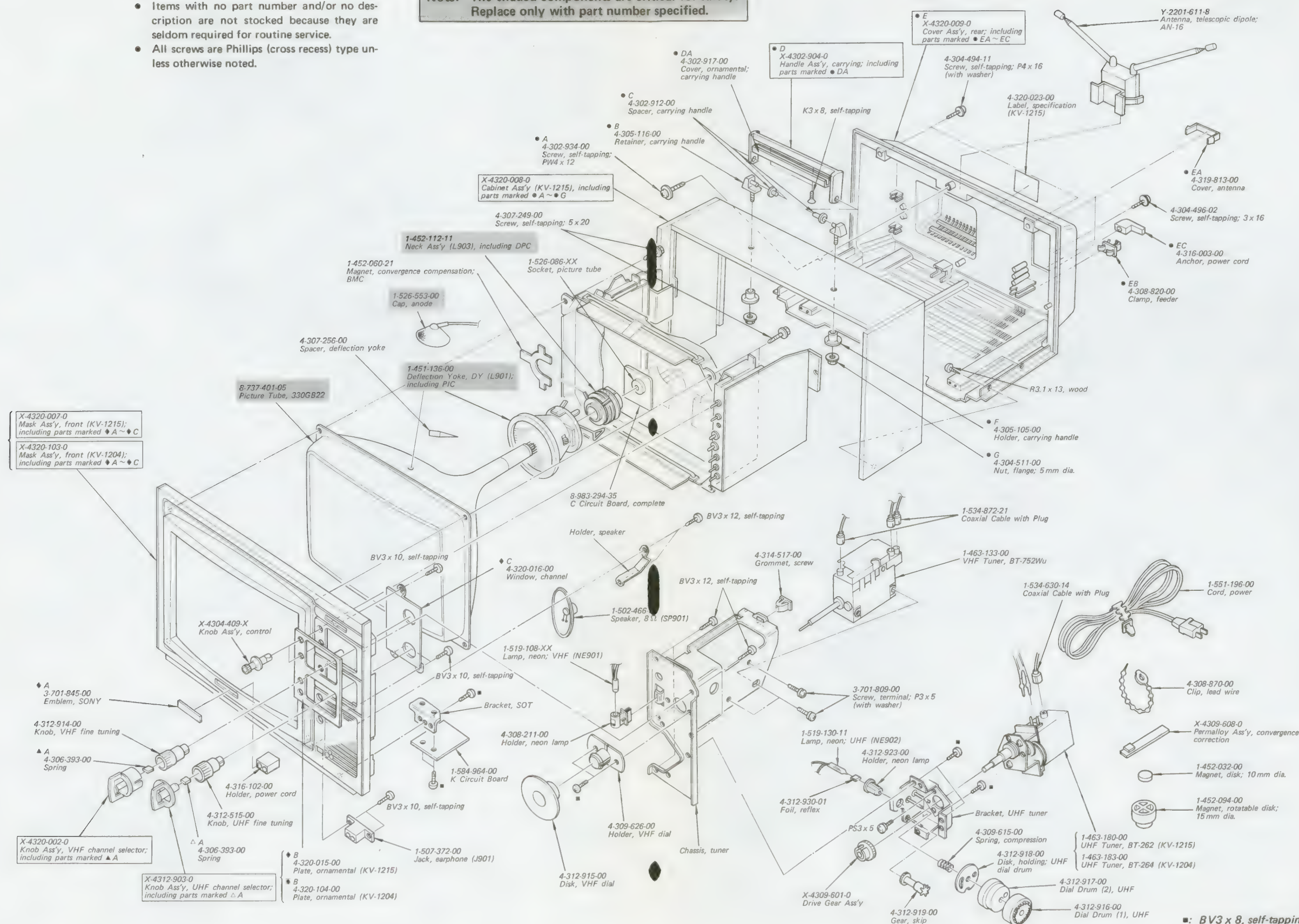
- All capacitors are in  $\mu F$  unless otherwise noted.  $p = \mu\mu F$ .
- All resistors are in ohms,  $1/4W$  unless otherwise noted.
- $k = 1000$   $M = 1000k$ .
- $\times$  indicates values to be selected.
- $\square$  indicates factory selected values.
- $\triangle$  indicates internal components.
- Voltages are DC with respect to ground unless otherwise noted. Reading are with a color-bar signal applied. Voltage variations may be noted due to normal production tolerances.
- $\square$  indicates a nonflammable resistor.
- $\circ$  Adjustable without removing cabinet.



**Note:**

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.

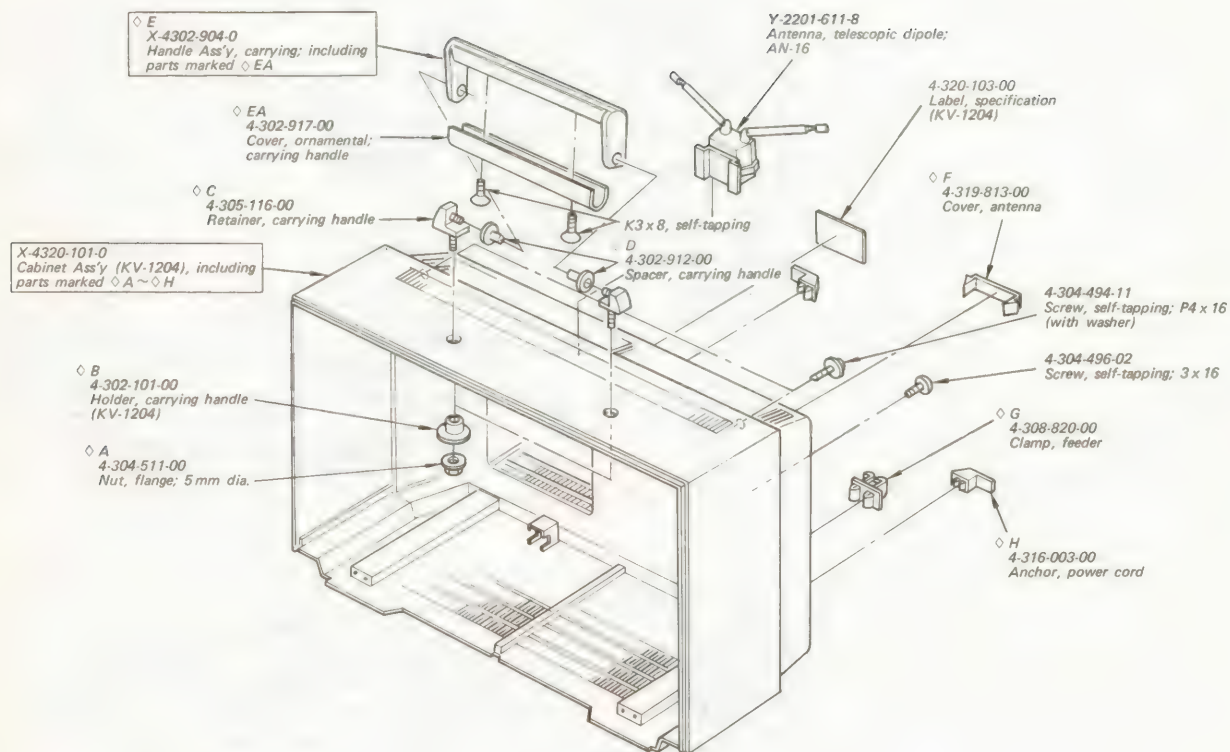
**Note:** The shaded components are critical for safety.  
Replace only with part number specified.



■: BV3 x 8, self-tapping



(2) . . . . . KV-1204









SECTION 7

ELECTRICAL PARTS LIST

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	
TUNERS AND CIRCUIT BOARDS			Q701~703	2SC1127	Miscellaneous				L523	1-459-156-00	Inductor with Magnetic Core	
1-463-133-00	VHF Tuner, BT-752Wu		Q901	2SC867A		Th201	1-800-071-XX	Thermistor TH-350	L532,533	1-407-200-00	Horizontal Centering, HCC	
1-463-180-00	UHF Tuner, BT-262 (KV-1215)		Q911	SG613		Th541	1-800-069-XX	Thermistor TH-1500	L534,535	1-459-155-00	45μH	
1-463-183-00	UHF Tuner, BT-264 (KV-1204)		Diodes			Th551	1-800-198-XX	Thermistor S-1250	L537	1-407-841-00	15μH	
1-584-962-00	P Circuit Board					Th591	1-800-070-XX	Thermistor TH-4700		L601	1-421-302-XX	Line Filter, LFT
1-584-964-00	K Circuit Board									L701	1-407-173-XX	220μH
8-983-294-35	C Circuit Board, complete		D201	1T261	PTh601	1-800-065-XX	Thermistor (positive)					
8-983-594-15	SC Circuit Board, complete		D202	1T40	Th603	1-800-070-XX	Thermistor TH-4700	L901	1-451-136-00	Deflection Yoke, DY (incl. PIC)		
8-983-594-25	D Circuit Board, complete		D203	1T261				L903	1-452-112-11	Neck Ass'y (incl. DPC)		
			D204	1T22				L904,905	1-425-922-00	Degaussing, DGC		
								L911	1-407-364-00	Spook Choke		
								L912	1-407-365-00	0.74μH		
SEMICONDUCTORS			D301	1T22A				TRANSFORMERS				
			D302~307	1T22	All coils are microinductor unless otherwise noted.							
			D401	1T22A	L153	1-407-184-XX	3.3μH (KV-1215 only)					
Q201,202	2SC1129		D501~504	1T40	L154	1-403-731-00	Transformer, automatic fine tuning;	T200	1-403-971-00	Video i-f, VIFT-5		
Q203	2SC1128		D505	EQA01-17R	L155	1-403-732-00	AFT-3 (KV-1215 only)	T201	1-403-925-00	Video i-f, VIFT-1		
Q204,205	2SA677		D521	SIB01-02				T202	1-409-213-00	Trap, VIFT-T2 (49 MHz)		
Q206~210	2SC633A		D531	SID30-13				T203	1-403-550-00	Video i-f, VIFT-2		
Q301	2SA677		D532,533	SIB01-02	L201	1-409-219-00	Trap, VIFT-T1 (47.25 MHz)	T204	1-403-550-00	Video i-f, VIFT-3		
Q302	2SC403C		D534	V11N	L202	1-409-220-00	Trap, VIFT-T3 (39.75 MHz)	T205	1-409-174-00	Trap, VIFT-T4 (41.25 MHz)		
Q303,304	2SA633A		D536	V09C	L203~206	1-407-184-XX	3.3μH	T206	1-403-524-00	Video i-f, VIFT-4		
Q305~309	2SC403C		D537	HF1Z	L207	1-425-504-00	Coil, RF	T207	1-409-146-00	Trap, 4.5 MHz		
Q401,402	2SC633A		D551	SIB01-02	L209,210	1-407-158-XX	12μH	T208	1-403-866-00	Sound i-f, SIFT-1		
Q403~405	2SA677		D552	1S1555	L211	1-407-169-XX	100μH	T209	1-403-871-00	Sound i-f, SIFT-2		
Q409	2SC633A		D571	HF1Z	L213	1-407-189-00	8.2μH	T301	1-425-670-00	Take-off, TOT		
Q501~503	2SC634A		D572, 573	SIB01-02	L214	1-407-167-00	68μH	T302	1-425-619-00	1st Band Pass, BPT-1		
Q521	2SC1810		D581	1T22A	L301	1-407-158-XX	12μH	T303	1-425-794-00	2nd Band Pass, BPT-2		
Q541	2SC634A		D582	1T40	L302	1-407-661-XX	470μH	T304	1-405-372-00	Burst Amplifier, BAT		
Q551	2SC633A		D591	1T40	L303	1-407-664-00	8.2 mH	T305	1-425-618-00	Continuous-Wave Oscillation, COT		
Q552	2SC1670		D601	U05E	L304	1-407-170-XX	120μH	T521	1-437-068-00	Horizontal Drive, HDT		
Q571	2SC1670		D605	RD11E	L305	1-407-162-XX	27μH	T541	1-421-263-00	Horizontal Pincushion Correction, PCT-H		
Q572	2SA840		D801	HF1C	L306,307	1-407-661-XX	470μH	T681	1-427-394-00	Sound Output, SOT		
Q581	2SC634A		ICs			L308	1-407-166-XX	56μH	T801	1-439-185-00	Flyback, FBT	
Q591	2SA677					L309	1-407-193-XX	680μH				
Q601	2SC926A					IC151	CX089D (KV-1215 only)	L401,402	1-407-167-XX	68μH		
Q602	2SC1670		IC201	AN240	L403	1-407-171-XX	150μH					
Q651	2SC926A					L405	1-409-193-00	3.58 MHz Trap				
Q652	2SC1670					L406	1-415-042-00	Delay Line				
Q653	2SA840					L501	1-407-720-00	100μH, spook choke				
Note: The shaded components are critical for safety. Replace only with part number specified.									Note: The shaded components are critical for safety. Replace only with part number specified.			



<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
<b>CAPACITORS</b>					
All capacitors are in $\mu\text{F}$ and ceramic type unless otherwise noted. 50V or less working voltages are omitted except for electrolytic type. $p = \mu\text{F}$ , elect = electrolytic					
C103	1-121-257-11	4.7 16V elect	C240,241	1-102-940-11	3p
C151	1-102-941-11	4p	C242	1-102-947-11	10p
C153,154	1-102-121-11	0.0022	C243	1-102-958-11	20p
C155	1-102-940-11	3p	C244	1-102-942-11	5p
C156	1-102-526-11	75p	C245	1-108-638-12	0.1 100V mylar
C157	1-102-496-11	82p	C246	1-121-415-11	100 16V elect
C158,159	1-102-121-11	0.0022	C247	1-121-391-11	1 50V elect
C160	1-102-043-11	0.001 500V	C248	1-101-006-11	0.047
C202	1-101-002-11	0.0022	C249	1-102-668-11	15p
C203	1-102-121-11	0.0022	C250	1-101-455-11	0.001
C204	1-102-935-11	2p	C251	1-101-006-11	0.047
C205,206	1-102-121-11	0.0022	C252	1-102-973-11	100p
C207	1-102-125-11	0.0047	C253	1-108-626-12	0.01 100V mylar
C208	1-101-003-11	0.0047	C254	1-121-391-11	1 50V elect
C209	1-102-121-11	0.0022	C264	1-102-529-11	100p
C211	1-102-935-11	2p	C265	1-121-393-11	3.3 50V elect
C212~216	1-101-002-11	0.0022	C266	1-102-942-11	5p
C219			C301	1-121-416-11	100 25V elect
C220	1-102-944-11	7p	C303,304	1-101-006-11	0.047
C221	1-102-662-11	7p	C305	1-102-941-11	4p
C222	1-102-963-11	33p	C306	1-101-006-11	0.047
C223,224	1-101-002-11	0.0022	C307	1-121-414-11	100 10V elect
C225	1-102-947-11	10p	C308	1-101-006-11	0.047
C226	1-102-856-11	5p	C309	1-121-651-11	10 16V elect
C227	1-121-402-11	33 10V elect	C310,311	1-101-006-11	0.047
C228~230	1-101-002-11	0.0022	C312	1-121-395-11	4.7 25V elect
C231	1-121-398-11	10 25V elect	C313	1-101-002-11	0.0022
C232	1-102-098-11	470p	C314	1-101-006-11	0.047
C233	1-121-404-11	33 25V elect	C316		
C234	1-121-402-11	33 10V elect	C318	1-102-952-11	16p
C235	1-102-114-11	470p	C320	1-121-651-11	10 16V elect
C236	1-121-391-11	1 50V elect	C321,322	1-101-006-11	0.047
C237	1-108-630-12	0.022 100V mylar	C323	1-102-888-11	150p
C238	1-121-396-11	4.7 50V elect	C324	1-101-006-11	0.047
C239	1-121-404-11	33 25V elect	C325,326	1-102-961-11	27p
			C327	1-102-959-11	22p
			C328	1-102-117-11	820p
			C329	1-102-961-11	27p
			C330	1-102-941-11	4p
			C331	1-102-765-11	120p



Ref. No.	Part No.	Description
C332	1-101-006-11	0.047
C333	1-121-395-11	4.7 25V elect
C334	1-101-006-11	0.047
C335	1-102-942-11	5p
C336	1-102-858-11	10p
C337	1-102-816-11	120p
C338,339	1-101-006-11	0.047
C341	1-101-888-11	68p
C342	1-121-391-11	1 50V elect
C343	1-102-959-11	22p
C345	1-101-006-11	0.047
C346	1-101-880-11	47p
C347	1-101-006-11	0.047
C348	1-102-965-11	39p
C350	1-102-886-11	82p
C351	1-102-958-11	20p
C352	1-102-961-11	27p
C353	1-102-958-11	20p
C354	1-102-961-11	27p
C355	1-102-959-11	22p
C356	1-102-953-11	18p
C357	1-102-961-11	27p
C358	1-102-953-11	18p
C359	1-102-961-11	27p
C360	1-102-959-11	22p
C361	1-102-973-11	100p
C362	1-101-002-11	0.0022
C363	1-102-114-11	470p
C364	1-121-415-11	100 16V elect
C365,366	1-102-971-11	82p
C367	1-102-973-11	100p
C368	1-102-816-11	120p
C369,370	1-101-002-11	0.0022
C402,403	1-102-858-11	10p
C404	1-121-450-11	2.2 50V elect
C405	1-121-726-11	0.47 50V elect
C406	1-121-951-11	0.47 50V elect
C407	1-121-391-11	1 50V elect
C414	1-102-944-11	7p
C430~432	1-102-111-11	270p
C434~436	1-102-113-11	390p

Ref. No.	Part No.	Description
C501	1-121-391-11	1 50V elect
C502,503	1-108-626-12	0.01 100V mylar
C504	1-108-634-12	0.047 100V mylar
C505	1-121-395-11	4.7 25V elect
C506	1-108-638-12	0.1 100V mylar
C507	1-102-973-11	100p
C508,509	1-108-911-12	0.0022 100V mylar
C510	1-102-832-11	330p
C511	1-121-396-11	4.7 50V elect
C512	1-108-636-12	0.068 100V mylar
C521	1-102-973-11	100p
C522,523	1-101-810-11	100p 500V
C524	1-121-415-11	100 16V elect
C525	1-121-391-11	1 50V elect
C526	1-121-999-11	10 160V elect
C527	1-102-098-11	470p
C528	1-108-624-12	0.0068 100V mylar
C529,530	1-102-098-11	470p
C531	1-123-024-11	33 160V elect
C532	1-130-070-11	5000p 1.5 kV polyethylene
C533	1-102-155-11	330p 2 kV
C534	1-130-069-11	0.43 200V polyethylene
C535	1-129-953-11	0.068 1.5 kV polyethylene
C536	1-102-095-11	330p 1 kV
C537	1-121-654-11	330 25V elect
C538	1-102-030-11	330p 500V
C539	1-102-038-11	0.001 500V
C541	1-121-398-11	10 25V elect
C542	1-108-632-12	0.033 100V mylar
C543	1-121-391-11	1 50V elect
C544	1-108-632-12	0.033 100V mylar
C551,552	1-108-626-12	0.01 100V mylar
C553	1-108-640-12	0.15 100V mylar
C554	1-131-158-11	10 16V tantalum
C555	1-121-404-11	33 25V elect
C556	1-121-261-11	220 35V elect
C557	1-108-684-12	0.0022 200V mylar
C558	1-121-404-11	33 25V elect
C571	1-123-167-11	1.5 160V elect
C572	1-108-692-12	0.01 200V mylar
C573	1-108-698-12	0.033 200V mylar

Note: The shaded components are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description
C574	1-121-989-11	330 25V elect
C575	1-102-038-11	0.001 500V
C577	1-102-212-11	820p 500V
C581	1-121-726-11	0.47 50V elect
C582	1-108-630-12	0.022 100V mylar
C583	1-102-110-11	220p
C591	1-102-114-11	470p
C601	1-108-745-12	0.22 125V mylar
C602	1-102-189-11	0.0047 150V
C606	1-125-074-11	470/10 200V elect (block)
C607	1-101-810-11	100p
C651	1-121-395-11	4.7 25V elect
C652	1-101-810-11	100p 500V
C653	1-102-832-11	330p
C654	1-121-398-11	10 25V elect
C655	1-121-999-11	10 160V elect
C701	1-130-064-11	0.1 800V polyethylene
C702	1-129-739-11	0.1 630V polyethylene
C703	1-102-249-11	680p 2 kV
C801	1-108-696-12	0.022 200V mylar
C802	1-121-262-11	10 250V elect
C911	1-102-155-11	330p 2 kV
CV201	1-141-138-XX	8p trimmer

RESISTORS

All resistors are in ohms. Regular-type  
¼W carbon resistors are omitted.  
Check schematic diagram for values.  
All adjustable and variable resistors have  
characteristic curve B, unless otherwise  
noted. k = 1000, M = 1000 k

R153	1-244-859-11	270 ½W carbon (KV-1215 only)
R230	1-213-131-11	100 1W metal oxide
R253	1-244-859-11	270 ½W carbon
R332	1-213-134-11	180 1W metal oxide

Note: The shaded components are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description
R351	1-213-133-11	150 1W metal oxide
R359	1-213-133-11	150 1W metal oxide
R520	1-213-150-11	3.9 k 1W metal oxide (nonflammable)
R522	1-244-917-11	68 k ½W carbon
R523	1-211-550-11	1.8 k ¼W carbon (nonflammable)
R524	1-211-421-11	39 ⅛W carbon (nonflammable)
R525	1-206-523-11	33 3W metal oxide (nonflammable)
R526	1-244-859-11	270 ½W carbon
R529	1-213-126-11	39 1W metal oxide (nonflammable)
R531	1-206-455-11	4.7 2W metal oxide (nonflammable)
R536	1-213-163-11	47 k 1W metal oxide
R538	1-211-536-11	390 ¼W carbon (nonflammable)
R539	1-212-390-11	2.7 1W metal oxide (nonflammable)
R545	1-244-865-11	470 ½W carbon
R559	1-207-467-11	2.2 ½W wirewound
R563	1-211-526-11	150 ¼W carbon (nonflammable)
R565	1-211-512-11	39 ¼W carbon (nonflammable)
R571,572	1-211-687-11	3.3 ¼W carbon (nonflammable)
R573	1-210-860-11	1.2 ¼W carbon (nonflammable)
R578		
R585	1-213-153-11	6.8 k 1W metal oxide (nonflammable)
R593	1-244-917-11	68 k ½W carbon
R595		¼W carbon (factory selected value)
R601	1-206-692-11	15 k 2W metal oxide (nonflammable)

■ : factory selected value



Note: The shaded components are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description
R602	1-213-160-11	27 k 1W metal oxide (nonflammable)
R604	1-211-441-11	390 1/8 W carbon (nonflammable)
R605	1-202-643-31	820 1/2 W composition
R606	1-206-700-11	33 k 2W metal oxide
R608		1/4 W carbon (factory selected value)
R611	1-211-929-11	82 1/8 W carbon (nonflammable)
R657,658	1-211-602-11	33 1/2 W carbon (nonflammable)
R659	1-211-933-11	47 1/8 W carbon (nonflammable)
R701~703	1-206-692-11	15 k 2W metal oxide (nonflammable)
R704~706	1-202-585-31	3.3 k 1/2 W composition
R707	1-202-629-31	220k 1/2 W composition
R708	1-202-639-31	560 k 1/2 W composition
R709,710	1-202-633-31	330 k 1/2 W composition
R711	1-202-639-31	560 k 1/2 W composition
R712	1-217-516-11	1.8 2W wirewound (nonflammable)
R713	1-202-613-31	47 k 1/2 W composition
R714	1-202-647-31	1.2 M 1/2 W composition
R715	1-202-651-31	1.8 M 1/2 W composition
R716	1-202-543-31	56 1/2 W composition
R717	1-202-625-31	150 k 1/2 W composition
R801	1-202-595-31	8.2k 1/2 W composition
R803,804	1-202-788-31	10 k 1W composition
R805	1-213-133-11	150 1W metal oxide (nonflammable)
R806	1-213-211-11	100 M 1W bleeder
R901	1-205-805-11	180 20W cement coated
R902	1-217-557-11	4.7 20W cement coated
VR201	1-224-641-XX	470, adjustable; TU AGC
VR202	1-224-640-XX	330, adjustable; SND REJ
VR203	1-224-642-XX	1 k, adjustable; VIF AGC
VR204	1-224-659-00	1 k/1 k, variable; PICTURE
VR205/S901	1-222-342-XX	50 k-D, variable; VOLUME

■ : factory selected value

Ref. No.	Part No.	Description
VR301	1-224-642-XX	1 k, adjustable; ACC
VR302	1-224-644-XX	4.7 k, adjustable; HUE CENT
VR303	1-224-657-00	3 k-Z, variable; HUE
VR304	1-224-656-00	500, variable; COLOR
VR401	1-224-640-XX	330, adjustable; B.DRIVE
VR402	1-224-640-XX	330, adjustable; G.DRIVE
VR403	1-224-640-XX	330, adjustable; R.DRIVE
VR404	1-221-389-XX	5 k, adjustable; B.BKG
VR405	1-221-389-XX	5 k, adjustable; G.BKG
VR406	1-221-389-XX	5 k, adjustable; R.BKG
VR407	1-224-658-00	20 k, variable; BRIGHT
VR501	1-224-646-XX	22 k, adjustable; H.FREQ
VR531	1-223-067-00	120, adjustable; H.CENT
VR541	1-222-512-00	10 k, adjustable; PIN
VR551	1-224-658-00	20 k, variable; V.HOLD
VR552	1-222-807-XX	20 k, adjustable; V.SIZE
VR571	1-221-389-XX	5 k, variable; V.CENT
VR601	1-222-517-00	1 k, adjustable; 115V ADJ
VR701	1-224-150-00	1 M, adjustable; SCRN
VR801	1-224-799-00	80 M, adjustable; H.STAT
MISCELLANEOUS		
F601	1-532-271-XX	Fuse, 4A
J901	1-507-372-00	Jack, earphone
NE901	1-519-108-XX	Lamp, neon; VHF
NE902	1-519-130-11	Lamp, neon; UHF
S151	1-516-933-00	Switch, pushbutton; AFT (KV-1215 only)
S301	1-516-933-00	Switch, pushbutton; AUTO
SG531	1-519-063-XX	Spark Gap, 1.5 kV
SG701~706	1-519-063-XX	Spark Gap, 1.5 kV
SP901	1-502-466-00	Speaker, 8Ω
X301	1-527-154-00	Crystal
	1-452-032-00	Magnet, disk; 10mm dia.

Note: The shaded components are critical for safety.  
Replace only with part number specified.

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	1-452-060-21	Magnet, beam convergence compensation; HMC/VMC		1-536-314-00	Antenna Terminal Board Ass'y
	1-452-094-00	Magnet, rotatable disk; 15 mm dia.		1-536-378-XX	Terminal Strip, 1L2 type
	1-526-086-XX	Socket, picture tube		1-551-196-00	Cord, power
	1-526-553-00	Cap, anode		8-737-401-05	Picture Tube, 330GB22
	1-534-630-14	Coaxial Cable with Plug			
	1-534-872-21	Coaxial Cable with Plug			

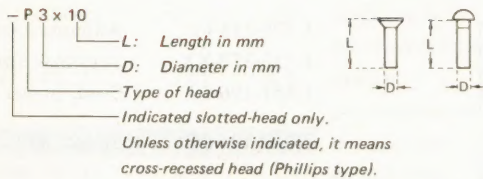
ACCESSORIES AND PACKING MATERIALS

Part No.	Description
X-3701-031-5	Card, warranty
Y-2063-103-0	Antenna, loop (AN-15)
Y-2201-611-8	Antenna, telescopic dipole (AN-16)
1-504-034-32	Earphone (ME-20B)
3-701-352-00	Bag, polyethylene
3-701-355-01	Label, tack
3-701-730-02	Envelope, IBM card
3-793-898-21	Tag, material
4-320-024-00	Sheet, protection (KV-1204 only)
4-320-025-00	Carton
4-320-026-00	Cushion, right; lower
4-320-027-00	Cushion, left; lower
4-320-028-00	Cushion, left; upper
4-320-029-00	Cushion, right; upper
4-320-105-00	Carton
4-320-106-00	Cushion, right; upper
4-320-107-00	Cushion, left; upper
4-320-108-00	Cushion, right; lower
4-320-109-00	Cushion, left; lower
4-491-039-12	Tag, VHF antenna
4-491-058-12	Tag, eye-catcher
4-491-107-22	Leaflet, instruction
4-493-214-12	Card, caution
4-495-559-21	Manual, instruction (KV-1204 only)
4-495-560-21	Manual, instruction (KV-1215 only)
7-822-282-01	Card, IBM (white)
7-822-282-02	Card, IBM (pink)
7-822-282-03	Card, IBM (green)

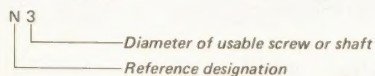


# HARDWARE NOMENCLATURE

Screw:



Nut, Washer, Retaining ring:



Reference Designation	Shape	Description	Remarks
<b>SCREWS</b>			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		brazer-head screw	

Reference Designation	Shape	Description	Remarks
<b>SELF-TAPPING SCREWS</b>			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self-tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
<b>SET SCREWS</b>			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
<b>NUT</b>			
N		nut	
<b>WASHERS</b>			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
<b>RETAINING RINGS</b>			
E		retaining ring	
G		grip-type retaining ring	

**Sony Corporation**

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